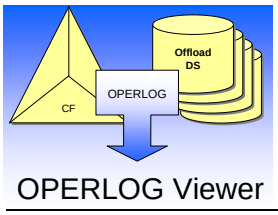

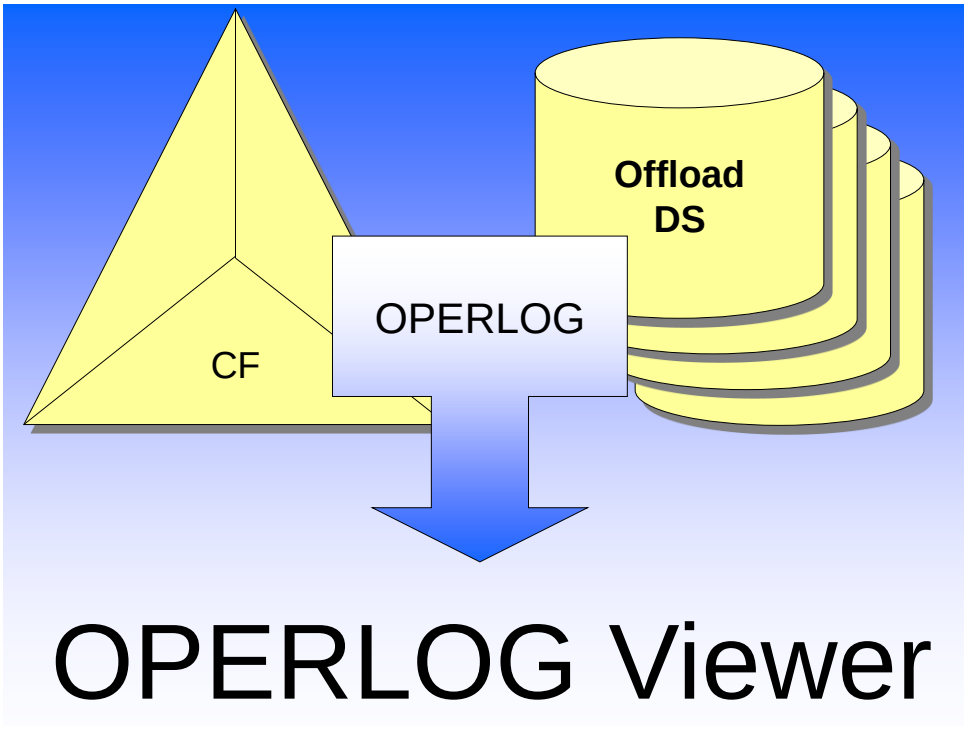

Operlog Viewer Version 2, Release 3
Mod 0

U s e r ' s G u i d e

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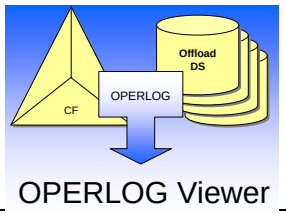

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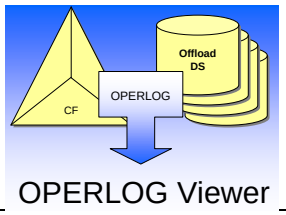

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1 OPERLOG Viewer

1.1 OPERLOG Viewer – Overview

OPERLOG Viewer delivers a quick and customized access to the z/OS OPERLOG function. A TSO/ISPF and batch accesses are supported.

The batch interface does not only allow the selection of Operlog data in background; it does also allow the saving of the Operlog data in SYSLOG and/or MDB (message data block) format. The saved data will be available over a customer selected date period using the same interface and facilities.

OPERLOG Viewer also addresses the problem of accessing the OPERLOG data within a big sysplex containing different users/customers. The access to OPERLOG can be controlled by SAF definitions and specified per system. This function is not only an important feature for security but also delivers high control and overview over the data.

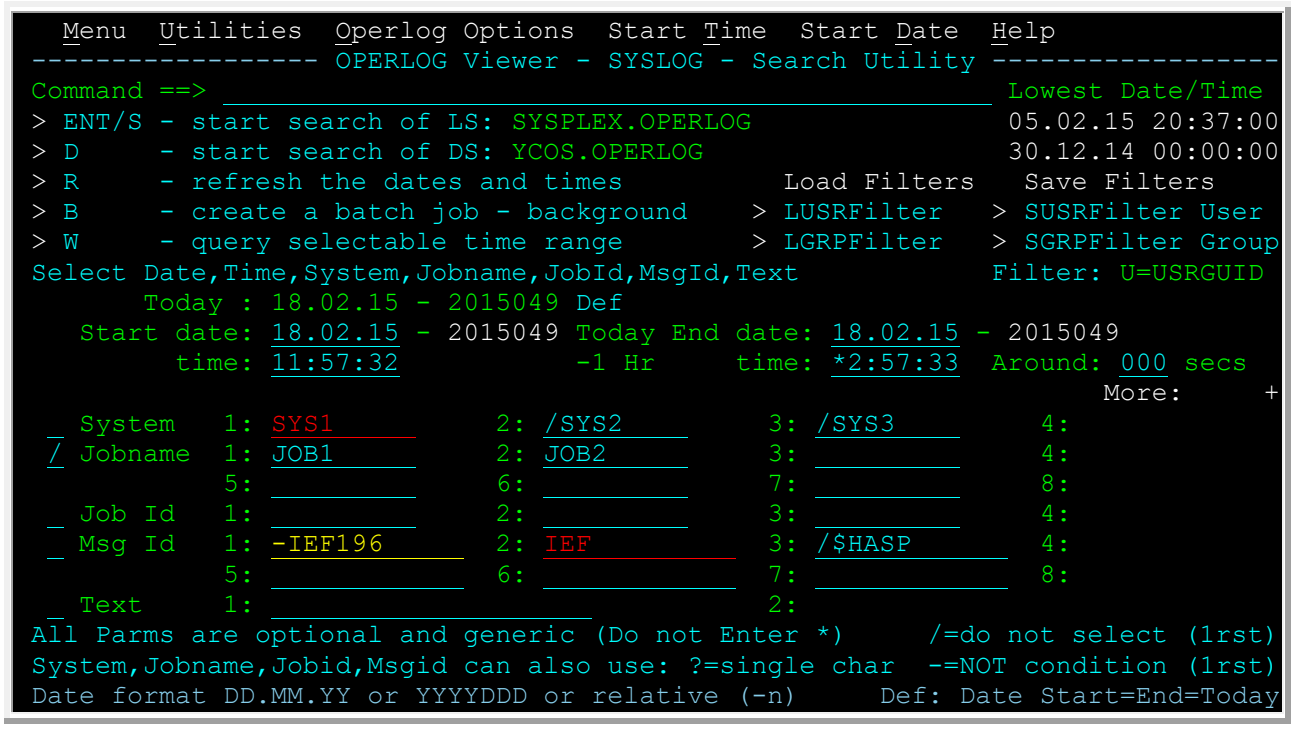
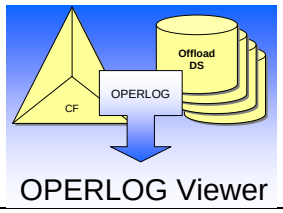

Menu Utilities Operlog Options Start Time Start Date Help
OPERLOG Viewer - SYSLOG - Search Utility
Command ==>
Lowest Date/Time
> ENT/S - start search of LS: SYSPLEX.OPERLOG
05.02.15 20:37:00
> D - start search of DS: YCOS.OPERLOG
30.12.14 00:00:00
> R - refresh the dates and times
Load Filters
Save Filters
> B - create a batch job - background
> LUSRFilter
> SUSRFilter User
> W - query selectable time range
> LGRPFilter
> SGRPFilter Group
Select Date,Time,System,Jobname,JobId,MsgId,Text
Filter: U=USRGUID
Today : 18.02.15 - 2015049 Def
Start date: 18.02.15 - 2015049 Today End date: 18.02.15 - 2015049
time: 11:57:32 -1 Hr time: *2:57:33 Around: 000 secs
More:
_ System 1: SYS1 2: /SYS2 3: /SYS3 4:
/ Jobname 1: JOB1 2: JOB2 3: 4:
5: 6: 7: 8:
_ Job Id 1: 2: 3: 4:
_ Msg Id 1: -IEF196 2: IEF 3: /$HASP 4:
5: 6: 7: 8:
_ Text 1: 2:
All Parms are optional and generic (Do not Enter *) /=do not select (1rst)
System,Jobname,Jobid,Msgid can also use: ?=single char -=NOT condition (1rst)
Date format DD.MM.YY or YYYYDDD or relative (-n) Def: Date Start=End=Today

Figure 1: OPERLOG Viewer – Main Panel



Here some samples of standard operations that OPERLOG Viewer delivers:

1.1.1 Search OPERLOG

TSO and Batch will provide the ability to search OPERLOG based on different filters and criteria's. In TSO the result will be displayed and in batch the data will be written to files:

- SYSLOGx will contain the SYSLOG output
- MSGLOG will contain possible messages and statistics.

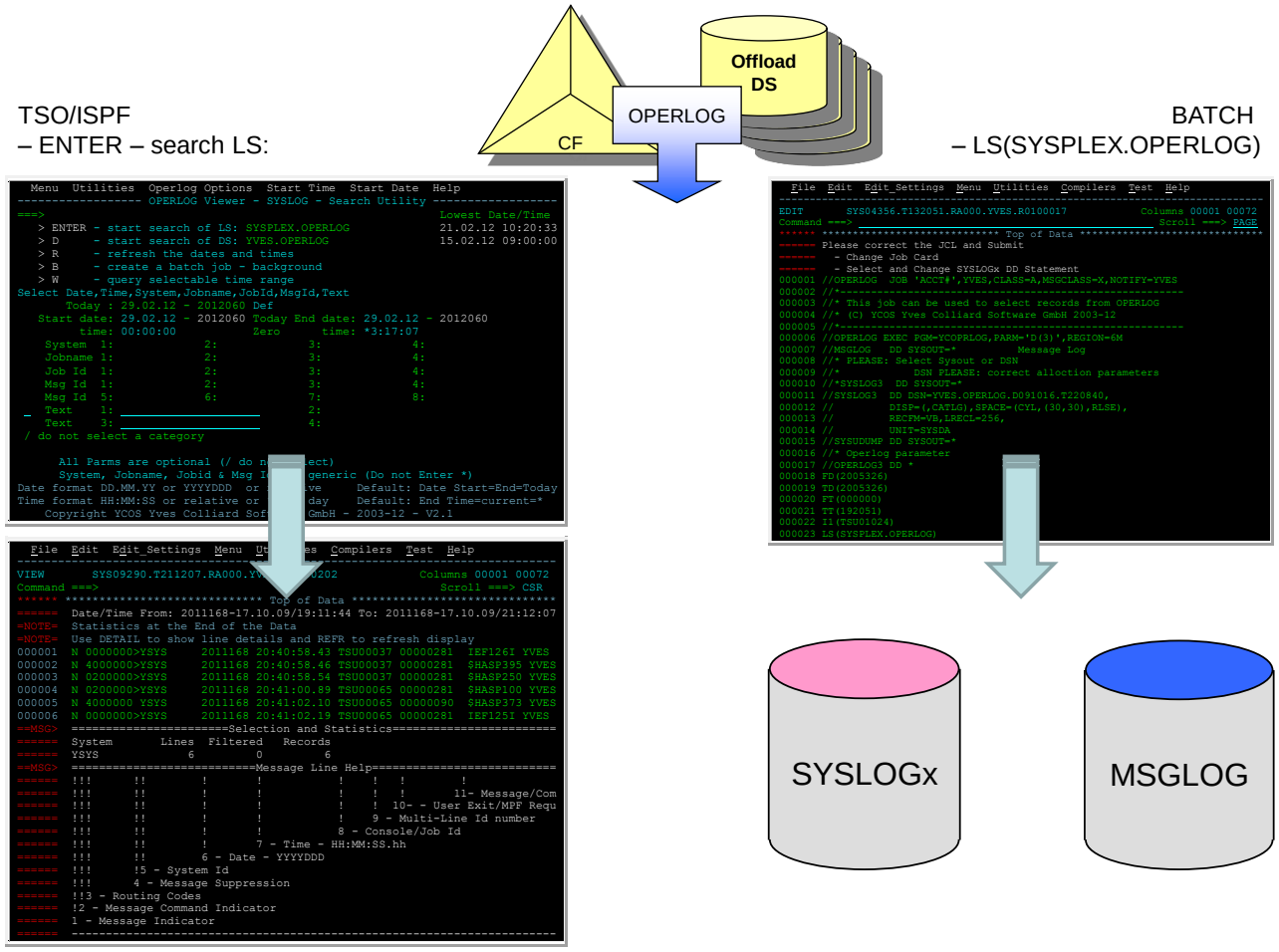


Figure 2: OPERLOG Viewer – search OPERLOG

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1.1.2 Create MDB saved datasets

OPERLOG Viewer delivers a very useful function “Create MDB saved datasets”.
The standard option from IBM is creating SYSLOG format as an archiving function. OPERLOG viewer delivers with “Create MDB saved datasets” a possibility to save the data in the original MDB format. The data, based on name conventions, will also be searched with the same interface as OPERLOG.

This function is only available in batch, should run every day and the running “user” needs ALTER access rights to the created datasets. See Batch – Create MDB saved datasets.

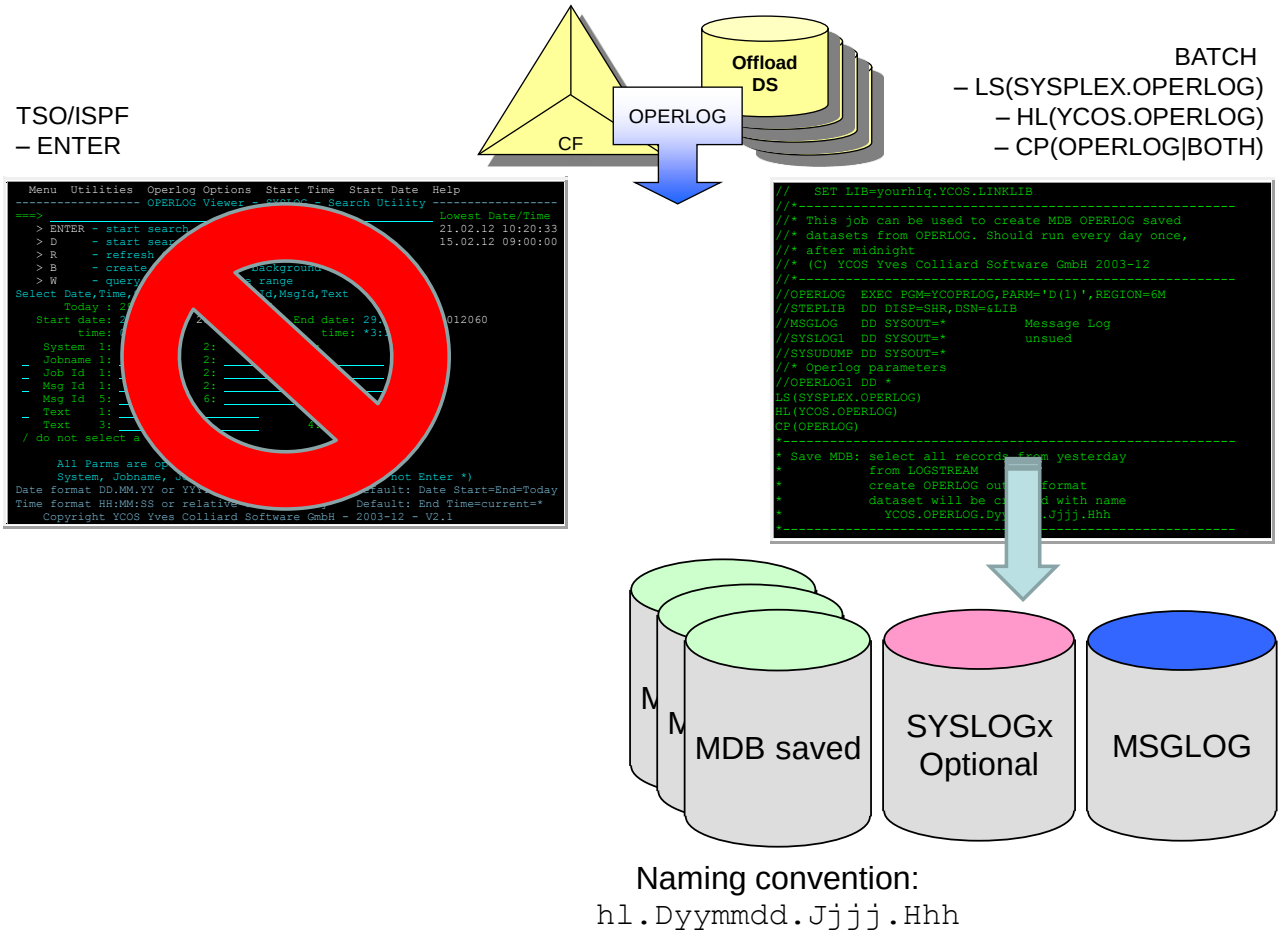
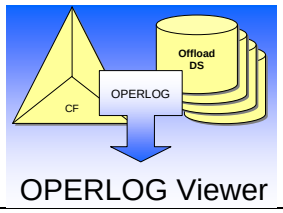


Figure 3: OPERLOG Viewer – create MDB saved datasets



1.1.3 Search MDB saved datasets

TSO and Batch will provide the ability to search MDB saved datasets based on different filters and criteria's *(the same as for OPERLOG)*. In TSO the result will be displayed and in batch the data will be written to files:

- SYSLOGx will contain the SYSLOG output
- MSGLOG will contain possible messages and statistics.

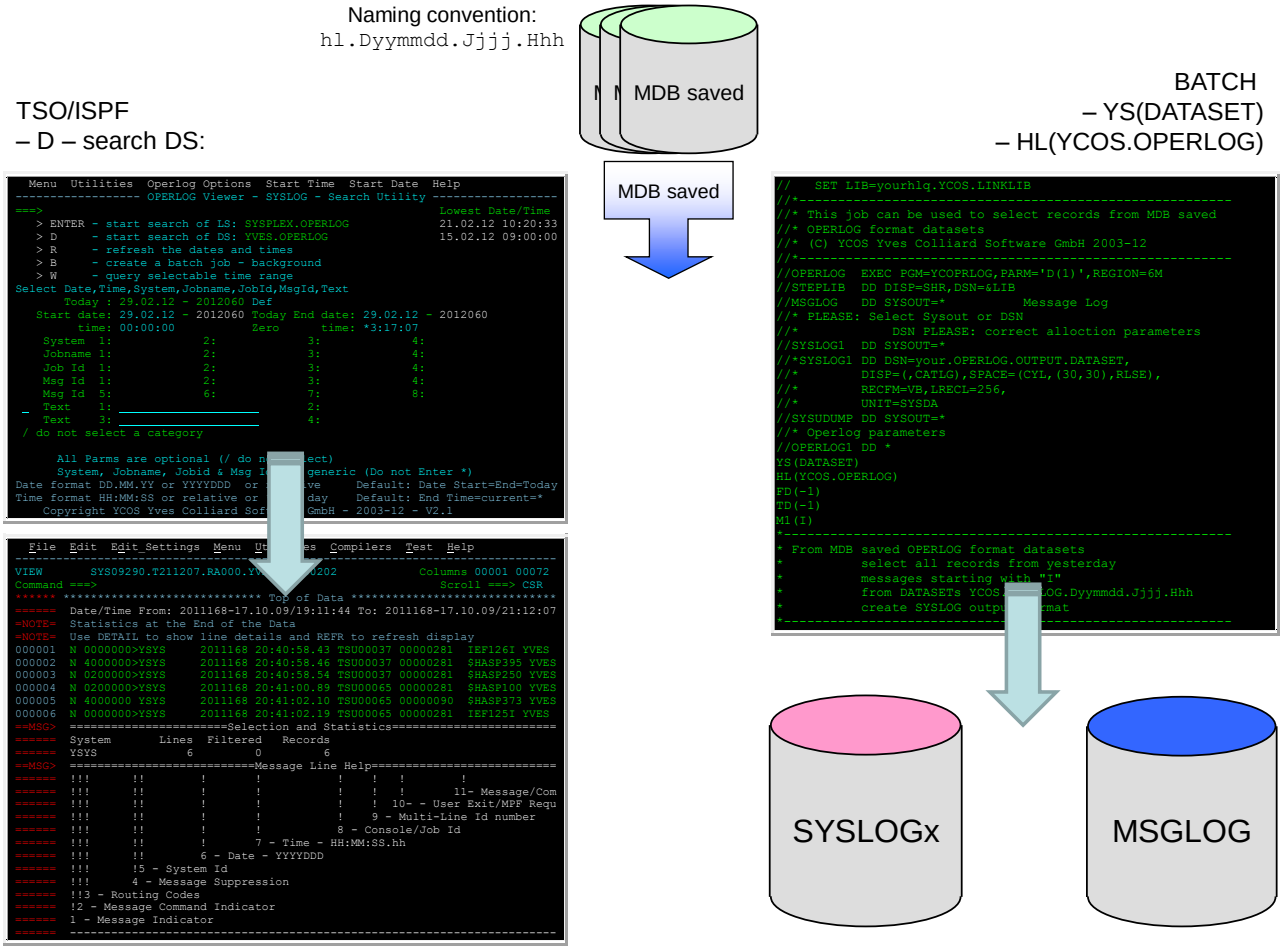


Figure 4: OPERLOG Viewer – search MDB saved datasets

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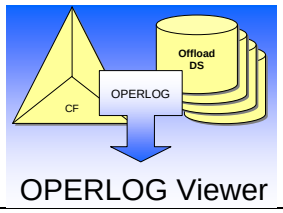
1.1.4 Search MDB saved datasets and Logstream

TSO and Batch will provide the ability to search MDB saved datasets and current OPERLOG Logstream based on different filters and criteria's *(the same as for all other operations)*. In TSO the result will be displayed and in batch the data will be written to files:

- SYSLOGx will contain the SYSLOG output
- MSGLOG will contain possible messages and statistics.

This selection will (must) be used if the selected date/time will include MDB saved and OPERLOG Logstream data. In this case OPERLOG Viewer (Option YS BOTH) will select from the MDB the data older than "today" and from "today" the data from the OPERLOG Logstream.



1.1.5 Options overview – Batch parameter

Batch Parameter	Option				
YS Your Selection	LOGSTREAM			DATASET	BOTH
LS Logstream	Required				Required
HL High Level Qualifier		Required		Required	Required
CP Copy Output Format	SYSLOG	OPERLOG	BOTH	SYSLOG	SYSLOG
	⇩	⇩	⇩	⇩	⇩
	Report		Report	Report	Report
		MDB save	MDB save		

[YS(LOGSTREAM)]
LS(SYSPLEX.OPERLOG)
[CP(SYSLOG)]
See Search OPERLOG

[YS(LOGSTREAM)]
LS(SYSPLEX.OPERLOG)
[CP(OPERLOG|BOTH)]
See Create MDB saved datasets

YS(DATASET)
HL(your.high.level.qualifier)
[CP(SYSLOG)]
See Search MDB saved datasets

YS(BOTH)
LS(SYSPLEX.OPERLOG)
HL(your.high.level.qualifier)
[CP(SYSLOG)]
See Search MDB saved datasets and Logstream

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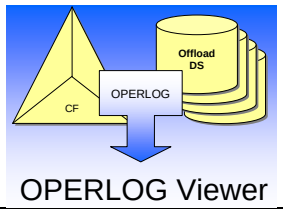
1.2 OPERLOG Viewer – main panel

Calling the OPERLOG Rexx will display following panel (screen size 80):

```
  Menu  Utilities  Operlog Options  Start Time  Start Date  Help
------------------ OPERLOG Viewer - SYSLOG - Search Utility ------------------
Command ==> _____________________________________________ Lowest Date/Time
> ENT/S - start search of LS: SYSPLEX.OPERLOG              05.02.15 20:37:00
> D     - start search of DS: YCOS.OPERLOG                 30.12.14 00:00:00
> R     - refresh the dates and times          Load Filters   Save Filters
> B     - create a batch job - background    > LUSRFilter   > SUSRFilter User
> W     - query selectable time range        > LGRPFilter   > SGRPFilter Group
Select Date,Time,System,Jobname,JobId,MsgId,Text            Filter:
       Today : 18.02.15 - 2015049 Def
   Start date: 18.02.15 - 2015049 Today End date: 18.02.15 - 2015049
         time: 12:16:24           -1 Hr     time: *3:16:24  Around: 000 secs
                                                          More:     +
 _ System    1: SYS1        2: /SYS2       3: /SYS3        4:
 / Jobname   1: JOB1        2: JOB2        3:              4:
             5:             6:             7:              8:
 _ Job Id    1:             2:             3:              4:
 _ Msg Id    1: -IEF196     2: IEF         3: /$HASP       4:
             5:             6:             7:              8:
 _ Text      1: _____________________      2:
             3: _____________________      4:
             5: _____________________      6:
             7: _____________________      8:
 / do not select a category
   Jobname   9:          10:          11:          12:
            13:          14:          15:          16:
   Msg Id    9:          10:          11:          12:
            13:          14:          15:          16:
   Text      9: _____________________   10:
            11: _____________________   12:
            13: _____________________   14:
            15: _____________________   16:
   System    5:          6:           7:           8:
             9:          10:          11:          12:
            13:          14:          15:          16:
   Job Id    5:          6:           7:           8:
             9:          10:          11:          12:
            13:          14:          15:          16:
 > LOGOPt - Set operlog options          > LOGHIgh - Set Highlighting options
      Copyright YCOS Yves Colliard Software GmbH - 2003-15 - V2.3 P041
All Parms are optional and generic (Do not Enter *)     /=do not select (1rst)
System,Jobname,Jobid,Msgid can also use: ?=single char  -=NOT condition (1rst)
Date format DD.MM.YY or YYYYDDD or relative (-n)     Def: Date Start=End=Today
```

Figure 5: OPERLOG Viewer – Main Panel (80)




```
  Menu  Utilities  Operlog Options  Start Time  Start Date  Help
 ------------------------------------------- OPERLOG Viewer - SYSLOG - Search Utility -------------
------------------------------
 Command ==> _____________________________________________ Lowest Date/Time
 > ENT/S - start search of LS: SYSPLEX.OPERLOG              05.02.15 20:37:00
 > D     - start search of DS: YVES.OPERLOG                 30.12.14 00:00:00
 > R     - refresh the dates and times          Load Filters   Save Filters
 > B     - create a batch job - background    > LUSRFilter   > SUSRFilter User
 > W     - query selectable time range        > LGRPFilter   > SGRPFilter Group
 Select Date,Time,System,Jobname,JobId,MsgId,Text            Filter: U=USRGUID
        Today : 18.02.15 - 2015049 Def
    Start date: 18.02.15 - 2015049 Today End date: 18.02.15 - 2015049
          time: 12:08:21           -1 Hr     time: *3:08:22  Around: 000 secs

More:     +
  _ System   1: SYS1_____    2: /SYS2____    3: /SYS3____    4: _________    5: _________    6:
             7: _____       8: _____       9: _____       10: _____       11: _____       12:
  / Jobname  1: JOB1_____    2: JOB2____    3: _____       4: _____       5: _____       6:
             7: _____       8: _____       9: _____       10: _____       11: _____       12:
    Job Id   1:             2:             3:             4:             5:             6:
             7: _____       8: _____       9: _____       10: _____       11: _____       12:
  _ Msg Id   1: -IEF196_____  2: IEF_____    3: /$HASP_____  4: _____       5: _____       6:
             7: _____       8: _____       9: _____       10: _____       11: _____       12:
  _ Text     1: _____________________       2: _____________________       3:
             4:                             5:                             6:
 All Parms are optional and generic (Do not Enter *)      /=do not select (1rst)
 System,Jobname,Jobid,Msgid can also use: ?=single char  -=NOT condition (1rst)
 Date format DD.MM.YY or YYYYDDD or relative (-n)      Def: Date Start=End=Today
```

Figure 6: OPERLOG Viewer – Main Panel (132)

```
  Menu  Utilities  Operlog Options  Start Time  Start Date  Help
 ------------------------------------------------------- OPERLOG Viewer - SYSLOG - Search Utility ----------------------------------------------------------
Command ==>                                                Lowest Date/Time
> ENT/S - start search of LS: SYSPLEX.OPERLOG               05.02.15 20:37:00
> D     - start search of DS: YVES.OPERLOG                  30.12.14 00:00:00
> R     - refresh the dates and times          Load Filters   Save Filters
> B     - create a batch job - background    > LUSRFilter   > SUSRFilter User
> W     - query selectable time range        > LGRPFilter   > SGRPFilter Group
Select Date,Time,System,Jobname,JobId,MsgId,Text             Filter:
      Today : 18.02.15 - 2015049 Def
   Start date: 18.02.15 - 2015049 Today End date: 18.02.15 - 2015049
         time: 12:24:21           -1 Hr     time: *3:24:21  Around: 000 secs

   System   1: SYS1          2: /SYS2         3: /SYS3         4:               5:               6:               7:               8:
            9: _________    10: _________    11: _________    12: _________    13: _________    14: _________    15: _________    16:
 / Jobname  1: JOB1_____     2: JOB2_____     3: _________     4: _________     5: _________     6: _________     7: _________     8:
            9: _________    10: _________    11: _________    12: _________    13: _________    14: _________    15: _________    16:
   Job Id   1:               2:               3:               4:               5:               6:               7:               8:
            9:              10:              11:              12:              13:              14:              15:              16:
   Msg Id   1: -IEF196       2: IEF           3: /$HASP        4:               5:               6:               7:               8:
            9:              10:              11:              12:              13:              14:              15:              16:
   Text     1:                                2:                                3:                                4:
            5: _____________________          6: _____________________          7: _____________________          8:
            9: _____________________         10: _____________________         11: _____________________         12:
           13: _____________________         14: _____________________         15: _____________________         16:




  / do not select a category
  > LOGOPt - Set operlog options          > LOGHIgh - Set Highlighting options
       Copyright YCOS Yves Colliard Software GmbH - 2003-15 - V2.3 P041
All Parms are optional and generic (Do not Enter *)      /=do not select (1rst)
System,Jobname,Jobid,Msgid can also use: ?=single char  -=NOT condition (1rst)
Date format DD.MM.YY or YYYYDDD or relative (-n)      Def: Date Start=End=Today
Time format HH:MM:SS or relative (-n) or *=all day    Def: End Time=current=*
```

Figure 7: OPERLOG Viewer – Main Panel (160)

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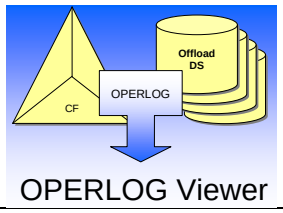
The Main Panel offers following options:

1.2.1 ENT – Enter – Search Operlog

- **ENT – ENTer** – start the search of the Logstream or the "MDB saved" datasets, depending on the selected date/time:
  - If the selected **Date/Time start and end** is within the available data from the OPERLOG Logstream, than the OPERLOG source will be automatically used. See **"S"** selection. See ENT/S – Search Operlog Logstream
  - If the selected **Date/Time start and end** is within available data from the "MDB saved", than the "MDB saved" source will be automatically used. See **"D"** selection. See D – Select Operlog MDB saved
  - If the selected **Date/Time start and end** is crossing the available data from the "MDB saved" and the OPERLOG Logstream, than:
    - The data older than "today" will be read from the "MDB saved" datasets
    - The data from "today" will be read from the Logstream
    - See Search MDB saved datasets and Logstream
  - To activate the automatic selection of the data, **ENTER Active** must be ON. see Pull-Down Menu – Operlog Options

1.2.2 ENT/S – Search Operlog Logstream

- **ENT/S** – start the search of LS – based on the selection criteria's the OPERLOG logstream will be searched and displayed. The available time range will be shown under "Lowest Date/Time" "LS :". The pull-down menu "Operlog Options" will allow a customization; a choice can be made about the needed action to start the search:
  - **Enter and S** will be available (Default).
    - Enter will select (and ENTER Active on see Pull-Down Menu – Operlog Options) the data from the Logstream or the "MDB saved" automatically
    - S will only select the Logstream
  - **Only S** will be available (Enter will be "Active off")
  - If the data is selected from the Logstream and the from/to date/time are not in the selected range, than an error will be displayed
    - `Start date lower than Operlog Logstream`



1.2.3 D – Select Operlog MDB saved

- **D** – start the search of DS – based on the selection criteria's the "MDB saved" information will be searched and displayed – new with version 2.1. The available time range will be shown under "Lowest Date/Time" "DS:" The pull-down menu "Operlog Options" will allow a customization; a choice can be made about the needed action to start the search:
  - **Enter and D** will be available (Default).
    - Enter will select (and ENTER Active on see Pull-Down Menu – Operlog Options) the data from the Logstream or the "MDB saved" automatically
    - D will only select the "MDB saved"
  - **Only D** will be available (Enter will be "Active off")
  - If the data is selected from the "MDB saved" and the from/to date/time are not in the selected range, than an error will be displayed
    - `Start date lower than saved MDB dataset`
    - `End date higher than saved MDB dataset`

1.2.4 R – Refresh Date/Time

- **R** – refresh the dates and times – the given date/time will be refreshed. Useful if relative date specification is used

1.2.5 B – Batch report

- **B** – create a batch job - background – the given date/time and selection criteria's will be used to create a batch job – some customization have to be done and then submit. The input data – Logstream or "MDB saved" will be selected depending on given date/time – see ENT – Enter – Search Operlog. The batch options are described under OPERLOG – Batch

1.2.6 W – Query selectable data

- **W** – query the selectable time range – based on the authorities *(IXCMIAPU Read LOGGER CDS)* the OPERLOG logstream available date/time will be shown. Starting with version 2.1 also the available „MDB saved" datasets will also be displayed (if customized and implemented!). See OPERLOG – query selectable time range.

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1.2.7 User and Group Filters

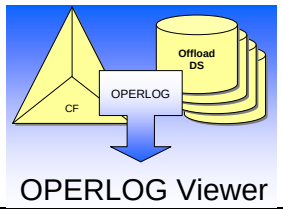
- **LUSRFilter** – load user filters – the filters can be saved in two different PO datasets; one user and one group (or system/organization) oriented. As the filters has been saved (see SUSRFilter) in the PO dataset, the user can load them. The load of the filter can be executed using the primary command LUSRFilter or the Point_and_shoot field. Using the primary command, the name of the saved member can be given within the command; without member name or using the Point_and_shoot a member list selection will be displayed.
  On the first call a panel will be displayed to setup the environment – the user and group PO dataset HAVE to be given (could be the same if the group function will not be used).
  Command syntax:
  `LUSRF [member_name]`

- **LGRPFilter** – load group filters – see LUSRFilter
  Command syntax:
  `LGRPF [member_name]`

- **SUSRFilter** – save user filters – the filters can be saved in user and group PO datasets. The save of the filter can be executed using the primary command SUSRFilter. The name of the saved member can be given within the command; without member name a member list selection will be displayed – an actual member can be overridden or a new one can be created (type: S member_name in the command line). If a member will be replaced, a confirmation panel will be displayed, unless the REPLACE parameter have been given (together with the member name).
  On the first call a panel will be displayed to setup the environment – the user and group PO dataset HAVE to be given (could be the same if the group function will not be used).
  Command syntax:
  `SUSRF [member_name [Replace]]`

- **SGRPFilter** – save group filters – see SUSRFilter.
  Command syntax:
  `SGRPF [member_name [Replace]]`

- **Filter:** the last loaded/saved filter will be displayed
  Output syntax:
  `U=member` or `G=member`



- **LOGOpt** – Set operlog options – this option will display a panel with the possibility to give the names of the user and group filter datasets – see LUSRF, LGRPF, SUSRF and SGRPF commands

```
  Menu  Utilities  Compilers  Options  Status  Help
--------------------- YCOS System Logger Sysplex Options ---------------------
Option ===>

    - YCOS Operlog Viewer - give a user dataset name to save/load filters
      User  : 'YVES.YCOS.OPERLOG.USER'

    - YCOS Operlog Viewer - give a group dataset name to save/load filters
      Group : 'YVES.YCOS.OPERLOG.GROUP'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```

Figure 8: Options panel

This panel will be shown
at the first call of a LUSRF/SUSRF/LGRPF/SGRPF command
or
using the LOGOPt primary command on the Operlog main panel:

- Both datasets have to be given
- have to be PO **(PDSE could be the best choice)**
- have to be preallocated RECFM FB and LRECL 80.

or
using the “LOGOPt - Set operlog options” point-and-shoot field on the panel
or
using YCSLOG option 4 – see YCSLOG user’s guide

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If a LUSRF/SUSRF/LGRPF/SGRPF command is called (or Point_and_shoot) without member name, than a member list will be displayed:

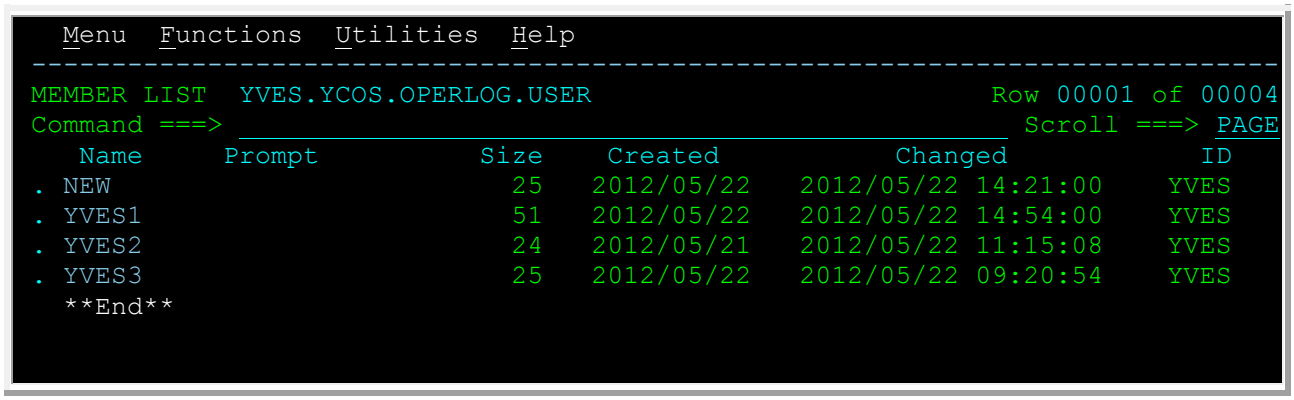

Menu Functions Utilities Help
MEMBER LIST YVES.YCOS.OPERLOG.USER Row 00001 of 00004
Command ===> Scroll ===> PAGE
Name Prompt Size Created Changed ID
. NEW 25 2012/05/22 2012/05/22 14:21:00 YVES
. YVES1 51 2012/05/22 2012/05/22 14:54:00 YVES
. YVES2 24 2012/05/21 2012/05/22 11:15:08 YVES
. YVES3 25 2012/05/22 2012/05/22 09:20:54 YVES
End

Figure 9: Filter member list selection

Following line commands will be supported:

- E – Edit the member
- V – View the member
- B – Browse the member
- S – select the member:
  - Load: the member will be loaded
  - Save: the member will be overridden

On the primary command a “S member_name” can be used to create new members.

The member content has following information:

`*YCOPRLOG Filter last changed dd/mm/yy hh:mm:ss userid Vx.y P###`

- Comment about the last change

`I1 – I9` and `IA – IG`

- The message id filters

`J1 – J9` and `JA – JG`

- The jobname filters

`M1 – M9` and `MA – MG`

- The message id filters

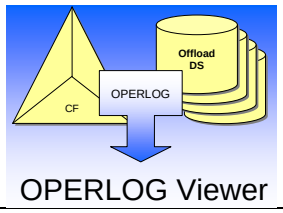
`S1 – S9` and `SA – SG`

- The system name filters

`X1 – X9` and `XA – XG`

- The text filters

The content is identical to the format used for batch processing!
But must start at position 1




```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
VIEW       YVES.YCOS.OPERLOG.USER(YVES1) - 01.00          Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
****** ***************************** Top of Data ******************************
000001 *YCOPRLOG Filter last changed 18/02/15 13:37:13 YVES V2.3 P041
000002 I1(I)
000003 I2()
000004 I3()
000005 I4(I4)
000006 J1(J)
000007 J2()
000008 J3()
000009 J4(J4)
000010 M1(M)
000011 M2()
000012 M3()
000013 M4(M4)
000014 M5()
000015 M6()
000016 M7()
000017 M8(M8)
000018 S1(A)
000019 S2(B)
000020 S3(C)
000021 S4(S4)
000022 X1(T)
000023 X2()
000024 X3()
000025 X4(T4)
```

Figure 10: Filter member content

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During a save/replace of a member, the old information will be written – as comments – at the end of the member:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
VIEW       YVES.YCOS.OPERLOG.USER(YVES1) - 01.00          Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
****** ***************************** Top of Data ******************************
000001 *YCOPRLOG Filter last changed 18/02/15 13:37:13 YVES V2.3 P041
000002 I1(I)
000003 I2()
000004 I3()
000005 I4(I4)
000006 J1(J)
000007 J2()
000008 J3()
000009 J4(J4)
000010 M1(M)
000011 M2()
000012 M3()
000013 M4(M4)
000014 M5()
000015 M6()
000016 M7()
000017 M8(M8)
000018 S1(A)
000019 S2(B)
000020 S3(C)
000021 S4(S4)
000022 X1(T)
000023 X2()
000024 X3()
000025 X4(T4)
000026 ********************************************************************************
000027 * saved filters ***************************************************************
000028 *YCOPRLOG Filter last changed 21/05/12 09:00:27 YVES
000029 *I1(I)
000030 *I2()
000031 *I3()
000032 *I4(I4)
000033 *J1(J)
000034 *J2()
000035 *J3()
000036 *J4(J4)
000037 *M1(M)
```

Figure 11: Filter member content after replacement

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Using the SUSRFilter and SGRPFilter the following options CANNOT be set:

- FD – From Date
- TD – To Date
- FT – From Time
- TT – To Time
- AROUND – previous/after filter match

If one of these filters are needed the values can be given using the ISPF Editor. The member should be edited and the values entered; following formats are supported:

- **All keywords have to start in column 1 and be uppercase!**
- FD(-x)
  - From Date relative to today
- TD(-x)
  - To Date relative to today
- FT(hh:mm:ss)
  - From Time – only the hh:mm:ss format is supported
- TT(hh:mm:ss)
  - To Time – only the hh:mm:ss format is supported

PLEASE BE CAREFULL DURING MAKING CHANGES TO THE MEMBERS USING THE ISPF EDITOR!

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1.2.8 Operlog highlighting

- **LOGHIgh** – Set operlog highlighting options – this option will display a panel with the possibility to define up to 10 values (strings) to be highlighted on Operlog display

```
  Menu  Utilities  Compilers  Options  Status  Help
-------------------- YCOS System Logger Sysplex Highlight ----------------------
Option ===>

  Value      Color   Highlight                  Value      Color   Highlight
_ _________  _______  ________                 _ _________  _______  ________

_ _________  _______  ________                 _ _________  _______  ________

_ _________  _______  ________                 _ _________  _______  ________

_ _________  _______  ________                 _ _________  _______  ________

_ _________  _______  ________                 _ _________  _______  ________

                     Highlight: Uscore/Blink/Reverse
              Color: White/Red/Blue/Green/Pink/Yellow/Turq
/ do not select an highlight filter                          PF3 to end and save

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```
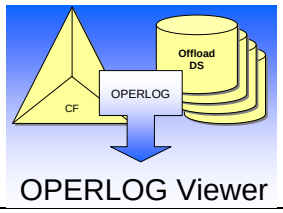

Figure 12: Highlighting Options panel

This panel will be shown
using the LOGHIgh command on the Operlog main panel
or
using the LOGHIgh command during viewing the Operlog output:

- Up to 10 definitions can be done; every definition has 4 fields
  - The first field can be used to disable an highlighting option; every non-blank character will be changed to "/"
  - The value field can be used to specify a text; up to 9 characters; which will be scanned and if found highlighted as defined
    - Color and highlight attributes can be given – one character is enough
      - R for Red
      - U for Uscore
      - …
- Pressing PF3 will return to the previous display and the settings will be saved to the profile

or
using the "LOGHIgh - Set Highlighting options" point-and-shoot field on the panel
or
using YCSLOG option 5 – see YCSLOG user's guide



Highlighting occurs using following rules:

- The highlighting starts as the value is found and ends at the next blank character
- Already highlighted fields will not be overridden
- Only fully visible values will be highlighted

```
  Menu  Utilities  Compilers  Options  Status  Help
------------------- YCOS System Logger Sysplex Highlight ---------------------
Option ===>

  Value      Color   Highlight                  Value      Color   Highlight
_ IEF        TURQ    USCORE                   _ $HASP      RED     REVERSE

_ YSYS       PINK    _______                  / NOTUSED    BLUE




                    Highlight: Uscore/Blink/Reverse
              Color: White/Red/Blue/Green/Pink/Yellow/Turq
/ do not select an highlight filter                        PF3 to end and save

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```

Figure 13: Highlighting Options panel – sample 1

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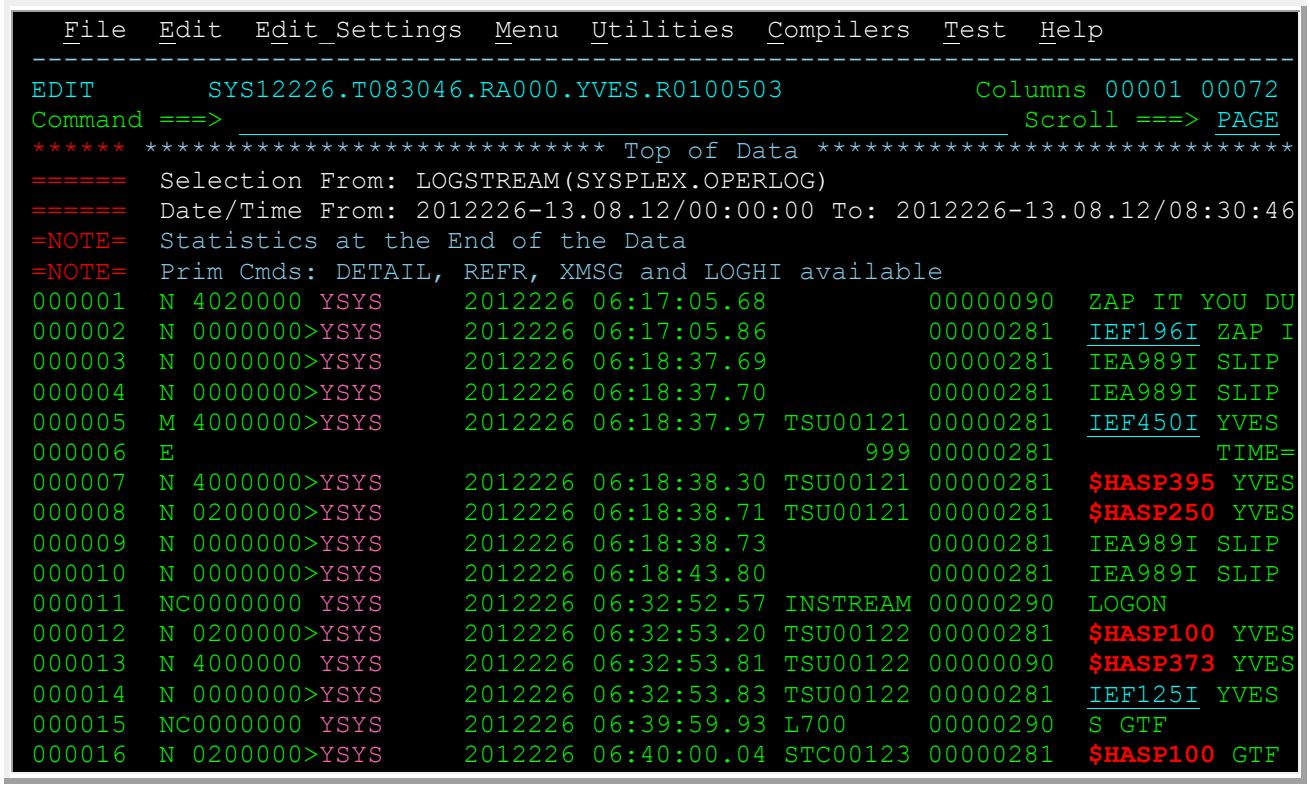

Figure 14: Highlighting Options panel – sample 1 – output

Use following definition to get all:

- $HASP395 in Red
- $HASP3 in Turquoise (but not $HASP395)
- $HASP in White (but not $HASP3)

```
  Menu  Utilities  Compilers  Options  Status  Help
------------------- YCOS System Logger Sysplex Highlight ---------------------
Option ===>

  Value      Color    Highlight                  Value      Color    Highlight
_ $HASP395   RED      ________                 _ $HASP3    TURQ     USCORE

_ $HASP      WHITE
```

Figure 15: Highlighting Options panel – sample 2

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       SYS12227.T195456.RA000.YVES.R0100517           Columns 00001 00072
Command ===> ____________________________________________ Scroll ===> PAGE
****** ***************************** Top of Data ******************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2012226-13.08.12/00:00:00 To: 2012227-14.08.12/19:54:56
=NOTE=  Statistics at the End of the Data
=NOTE=  Prim Cmds: DETAIL, REFR, XMSG and LOGHI available
000001  N 4000000>YSYS     2012226 06:18:38.30 TSU00121 00000281  $HASP395 YVES
000002  N 0200000>YSYS     2012226 06:18:38.71 TSU00121 00000281  $HASP250 YVES
000003  N 0200000>YSYS     2012226 06:32:53.20 TSU00122 00000281  $HASP100 YVES
000004  N 4000000 YSYS     2012226 06:32:53.81 TSU00122 00000090  $HASP373 YVES
000005  N 0200000>YSYS     2012226 06:40:00.04 STC00123 00000281  $HASP100 GTF
000006  N 4000000 YSYS     2012226 06:40:00.17 STC00123 00000090  $HASP373 GTF
000007  N 4000000>YSYS     2012226 06:40:09.95 STC00123 00000281  $HASP395 GTF
000008  N 0200000>YSYS     2012226 06:40:10.00 STC00123 00000281  $HASP250 GTF
000009  N 4000000>YSYS     2012227 19:27:23.14 TSU00122 00000281  $HASP395 YVES
000010  N 0200000>YSYS     2012227 19:27:23.18 TSU00122 00000281  $HASP250 YVES
000011  N 0200000>YSYS     2012227 19:34:04.57 TSU00124 00000281  $HASP100 YVES
000012  N 4000000 YSYS     2012227 19:34:05.25 TSU00124 00000090  $HASP373 YVES
==MSG>  ======================Selection and Statistics=========================
======  Selection Msg Id : $
======  System       Lines  Filtered   Records
======  YSYS            12        79        82
****** ***************************** Bottom of Data ***************************
```

Figure 16: Highlighting Options panel – sample 2 – output

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1.2.9 Pull-Down Menu – Operlog Options

The Pull-Down „Operlog Options“ can be selected to set following default settings:

- **Message Help - On** – Message-Help will be displayed – see Message Help
- **Message Help - Off** – Message-Help will not be displayed
- **Position to - Top** – OPERLOG data will be displayed from the oldest selected data – Default
- **Position to - Bottom** – OPERLOG data will be displayed from the youngest selected data
- **Message Info - On** – Message-Info will be displayed – see Message Help
- **Message Info - Off** – Message-Info will not be displayed
- **ENTER active - On** – ENTER will be used as command for starting display of OPERLOG data – “S” as primary command will also do. This setting will guarantee that the data will be automatically selected based on the given date/time. See ENT – Enter – Search Operlog
- **ENTER active - Off** – ENTER will only refresh the panel. “S” must be used as primary command for starting display of OPERLOG data or “D” for “MDB saved” data.
- **Display Fmt - JID** – The Job Id will be displayed (Default JES2)
- **Display Fmt - Jobname** – The Jobname will be displayed (Default JES3)
- **Display Fmt - Default** – The Job Id or the Jobname will be displayed, depending on the site setup – see Customization – or if not given, based on the subsystem type (JES2=Job Id, JES3=Jobname)

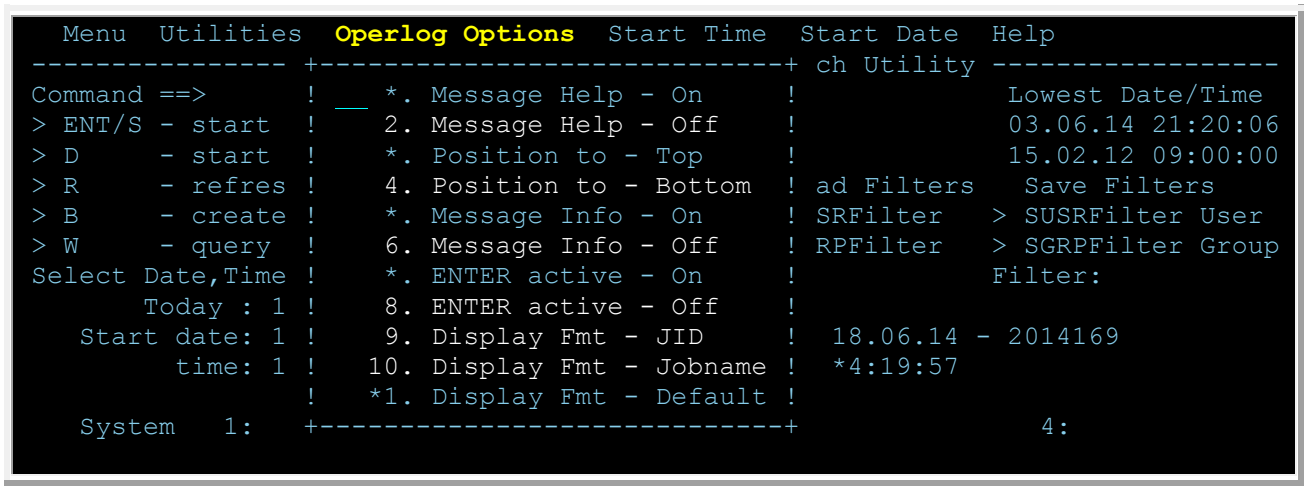
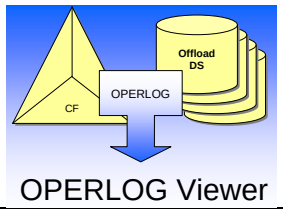


Figure 17: Pull-Down Menu – Operlog Options



1.2.10 Pull-Down Menu – Start Time

The Pull-Down „Start Time“ will control the default start time; displayed on first call or during Refresh see R – Refresh Date/Time:

- **Start Time 00:00:00**
- **Start Time -1 hour**
- **Start Time -2 hours**
- **Start Time -3 hours**
- **Start Time -15 minutes**
- **Start Time -30 minutes**
- **Start Time -45 minutes**

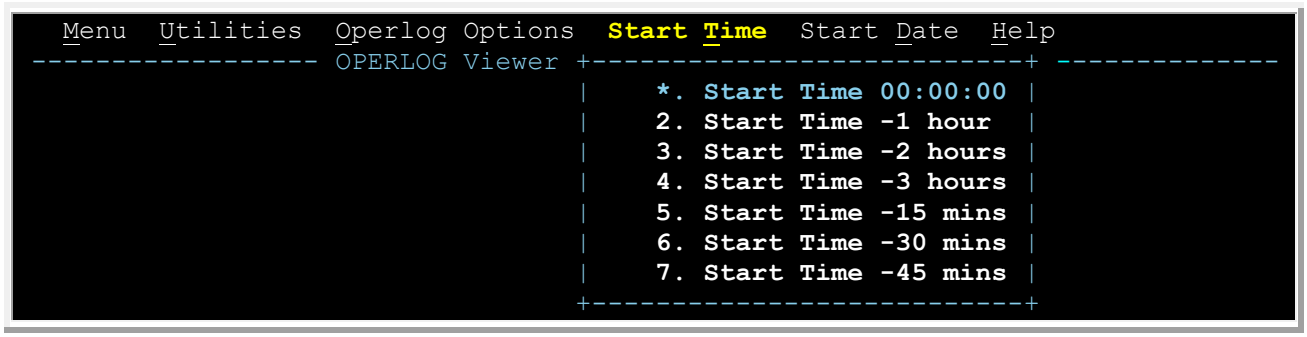

Menu Utilities Operlog Options Start Time Start Date Help
OPERLOG Viewer
*. Start Time 00:00:00
2. Start Time -1 hour
3. Start Time -2 hours
4. Start Time -3 hours
5. Start Time -15 mins
6. Start Time -30 mins
7. Start Time -45 mins

Figure 18: Pull-Down Menu – Start Time

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1.2.11 Pull-Down Menu – Start Date

The Pull-Down „Start Date“ will control the default start date; displayed on first call or during Refresh see R – Refresh Date/Time:

- **Start Date today**
- **Start Date -1 day**
- **Start Date -2 days**
- **Start Date -3 days**

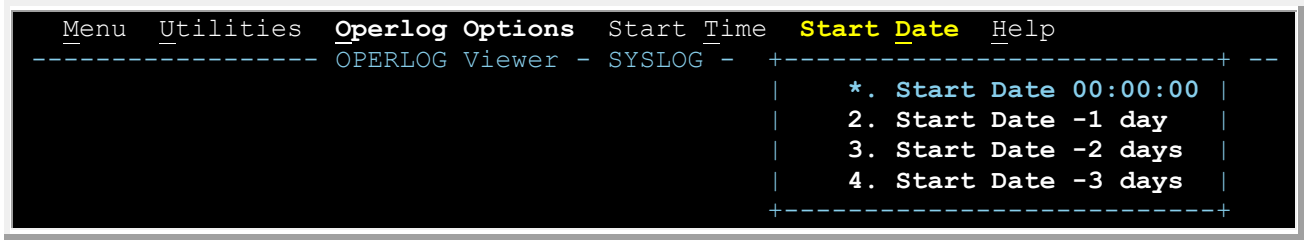
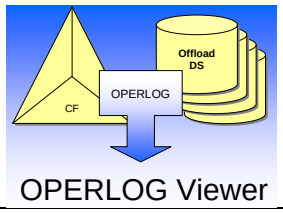

Menu Utilities Operlog Options Start Time Start Date Help
OPERLOG Viewer - SYSLOG -
*. Start Date 00:00:00
2. Start Date -1 day
3. Start Date -2 days
4. Start Date -3 days

Figure 19: Pull-Down Menu – Start Date



1.3 Start the search – Logstream and MDB saved

1.3.1 ENT/S – start the search of LS
1.3.2 D – start the search of DS
1.3.3 ENT – start the search of LS and DS

Two options can be used to start the search of the OPELOG data and specify the source data:

- ENT/S – will start the search within the OPERLOG logstream data. The possible date/time scope for the search will be displayed on the panel under "Lowest Date/Time – LS :". If "ENTER and S" or only "S" will be used, can be selected on the pull down menus – see ENT – Enter – Search Operlog
- D – will start the search within the OPERLOG "MDB saved datasets". The possible date/time scope for the search will be displayed on the panel under "Lowest Date/Time – DSN:"
- If "ENTER Active" is ON (see Pull-Down Menu – Operlog Options) and the requested date/time range is crossing "MDB saved" and Operlog, than:
    - The data older than "today" will be read from the "MDB saved" datasets
    - The data from "today" will be read from the Logstream

All selection parameters can be used for Logstream and "MDB saved datasets":

1.3.4 Date and time selection

- **Start date**, **End date**, **Start time** and **End time**: these parameters will control the scope of the search period:
    a. The default start time – relative to the end time (default now) – can be set using the pull-down menu "Start Time". Seven options are available:
        i. Start Time = 00:00:00
        ii. Start Time = End Time – 1 hour
        iii. Start Time = End Time – 2 hours
        iv. Start Time = End Time – 3 hours
        v. Start Time = End Time – 15 minutes
        vi. Start Time = End Time – 30 minutes
        vii. Start Time = End Time – 45 minutes

    b. The start time can also be specified as "*" (in first character) and will represent an all-day selection – from time 000000 to 235959

    c. The end time can also be specified as "*" (in first character) and will represent the current time

    d. The default start date – relative to end date – can be set using the pull-down menu

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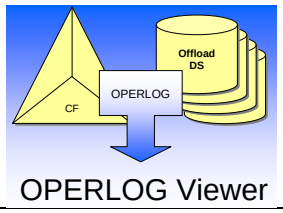
e. The Pull-Down Menu „Start Date“ can be used to set one of 4 different default settings:
   i. Start Date = today
   ii. Start Date = End Date – 1 day
   iii. Start Date = End Date – 2 days
   iv. Start Date = End Date – 3 days

f. Date and time can also be given as a relative value – like:
   i. -5 or -3

g. The time can also partialy given:
   i. 12 will be converted to
      1. 12:00:00 for the start time
      2. 12:59:59 for the end time
   ii. 12:13 will be converted to
      1. 12:13:00 for the start time
      2. 12:13:59 for the end time

h. The date can also be given in Julian form – YYYYJJJ – like 2012030



1.3.5 Around selection

- **Around**: this parameter is controlling the way OPERLOG Viewer will deliver data based on filters (System, Jobname, Job id, Message id, Text):
  a. **000** : only the selected/filtered data will be shown
  b. **###** : around the selected/filtered data up to ### seconds will be shown - before/after the selected/filtered data
     i. **ATTENTION: this option will read the data (MDB / Logstream) twice! First to find out the data to be displayed/selected and a second time to catch also the data before/after**

Example for AROUND Usage:
The first selection is done using a message id filter on IEF403 – the result will be for instance:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
- LOGSTREAM(SYSPLEX.OPERLOG) ------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                  Columns 00001 00124
Command ===>                                                                 Scroll ===> CSR
****** ***************************************************** Top of Data ***********************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2015049-18.02.15/12:04:23 To: 2015049-18.02.15/13:04:30
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN(#) MDET/HMSG
000001  N 0000000>SYS1     2015049 12:14:31.45 JOB00045 00000281  IEF403I YVESS - STARTED - TIME=12.14.31
000002  N 0000000>SYS1     2015049 12:56:48.81 JOB00048 00000281  IEF403I YVESS - STARTED - TIME=12.56.48
==MSG>  ======================Selection and Statistics=======================
======  Selection Msg Id : IEF403
======  System       Lines  Filtered   MDBRecs
======  SYS1             2        86        80
****** ***************************************************** Bottom of Data ********************************
```

Figure 20: Selection without AROUND keyword

We will not be able to know: what have been the messages around this event?

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Now using the same message id filter but also an AROUND 3 seconds parameter we will ge following result:

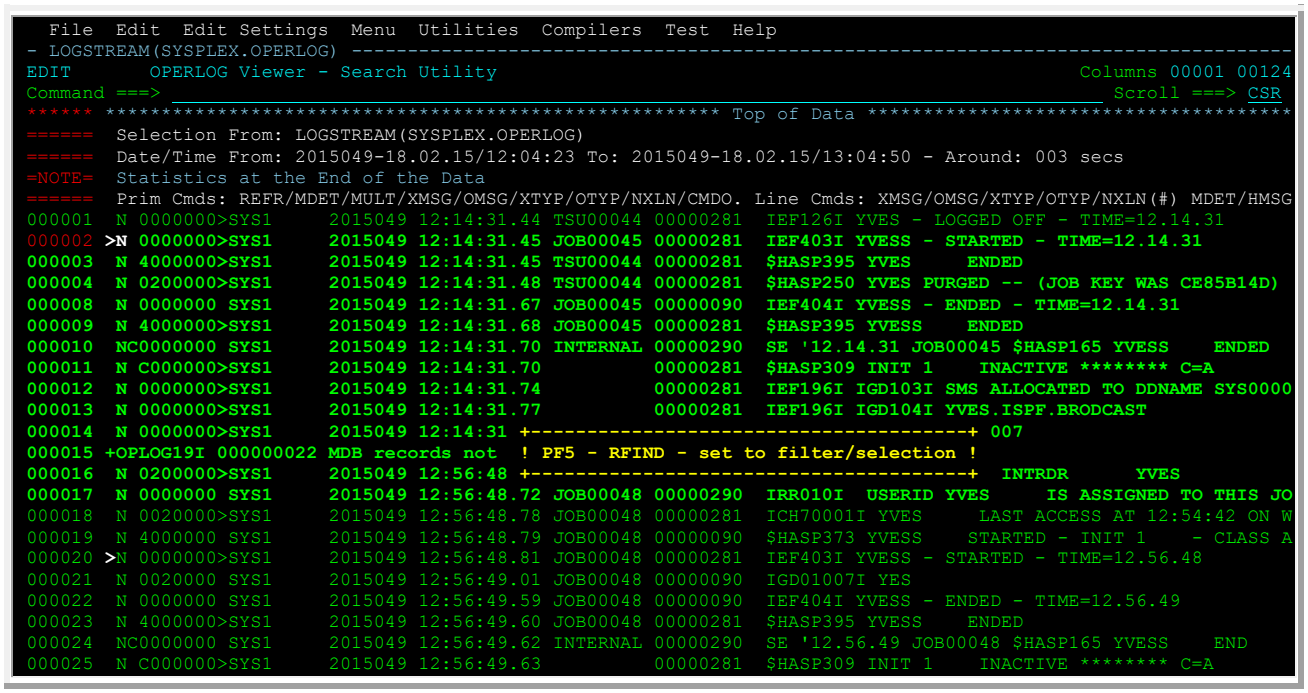
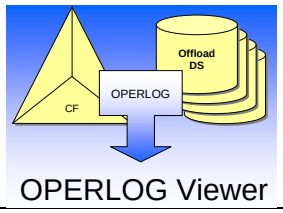


Figure 21: Selection with AROUND keyword

The filtered data will be marked in the first column with a “>” and using PF5 – RFIND the data will be searched.
Data “not selected/shown” – outside the 3 seconds range – will be replaced by an eyecatcher:
+OPLOG19I 000000022 MDB records not shown ...
Please be carefull! The counter represent a number of MDB records – NOT a number of messages; since one MDB record can hold many messages!



1.3.6 System filter

- Up to 16 system names can be given to filter the data. See filter conventions

1.3.7 Jobname filter

- Up to 16 Jobnames can be given to filter the data. See filter conventions

1.3.8 Job Id filter

- Up to 16 Job, Stc or TSO JES Ids can be given to filter the data. See filter conventions

1.3.9 Message Id filter

- Up to 16 message identifiers can be given to filter the data. See filter conventions

1.3.10 Text filter

- Up to 16 text can be given to filter the data. See filter conventions
- Text filter will NOT SUPPORT:
    a. Single character masking! A “?” will be treated as a search for a question mark
    b. “NOT” notation! A “-“ in first position will be treated as a search for an hyphen

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1.3.11 Filter convention: Generic

All data will be treated as generic – No “*” should be given! Since they would be handle as text (an asterisk)!

Figure 22: Filter convention: generic

Select all IEF* messages

1.3.12 Filter convention: Masking

Single character masking can be done using a “?”

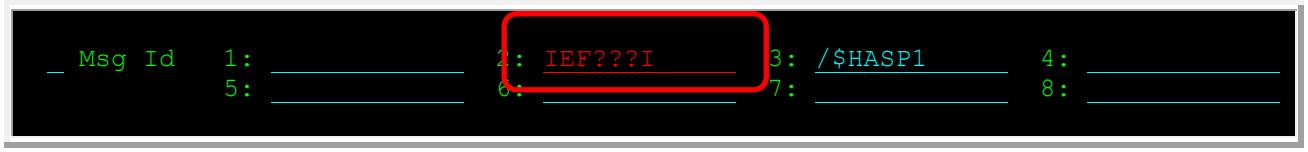

Figure 23: Filter convention: masking

Select all IEF???I* messages
Starting with IEF, 3 unknown characters, a “I”, and anything following

Not supported by Text Filter. A “?” will be treated as a search for a question mark

1.3.13 Filter convention: NOT

A “-“ in first position within the filter will notify a negation of the selection

Figure 24: Filter convention: NOT

Select all IEF* messages but NOT the IEF196*

Not supported by Text Filter. A “-“ in first position will be treated as a search for an hyphen

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Please take care of the given sequence of the filters:

Figure 25: Filter convention: NOT – possible error

This setting will **display NO data**! Since NOT IEF will be catched and the second condition will only be checked on “other” messages!

1.3.14 Filter convention: many filter

Within a category – for instance message id – all given filters will be treated as “OR” condition

In-between categories –for instance message id and system name – all given filters will be treated as “AND” condition

1.3.15 Filter convention: deactivate

If a filter as to be “deactivated”, a “/” can be given in the first position – for instance:

Figure 26: Filter convention: deactivate a filter

Do $HASP1 will not be used as a filter `/$HASP1`
“deactivated” filters will be displayed using **TURQUOISE**

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If a complete filter category has to be “deactivated”, a “/” can be given on the left option

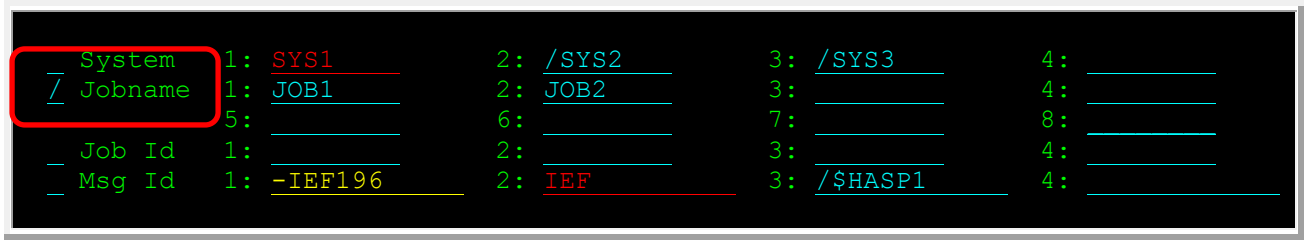


Figure 27: Filter convention: deactivate a category

“deactivated” filters will be displayed using **TURQUOISE**

1.3.16 Filter convention: enable

All “enabled and positive” filters will be displayed in red to enhance visibility

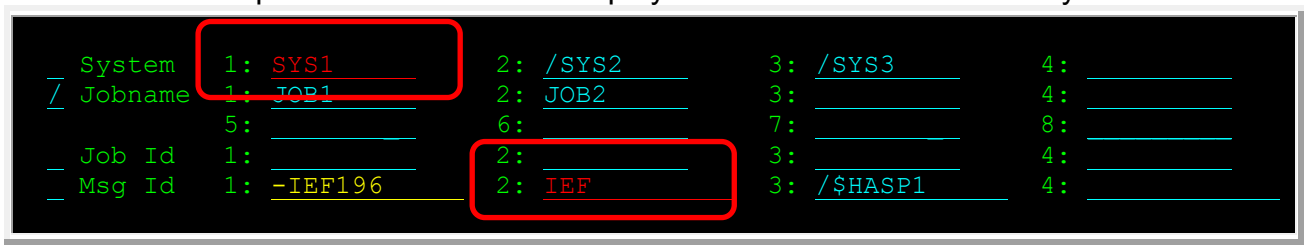


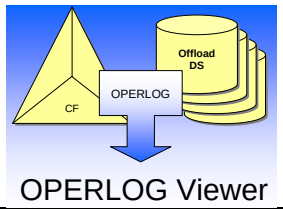
Figure 28: Filter convention: enable

“enabled and positive” filters will be displayed using **RED**

1. All “NOT” filters will be displayed in yellow to enhance visibility

Figure 29: Filter convention: NOT

“NOT” filters will be displayed using **YELLOW**



1.4 Display – Operlog Data

The display of the OPERLOG data through OPERLOG Viewer will be done with ISPF edit *(if possible – browse if too much data is given – use big region size for TSO users)*. Following data will be shown – here a sample:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
- LOGSTREAM(SYSPLEX.OPERLOG) ------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                          Columns 00001 00152
Command ===>                                                                                         Scroll ===> CSR
****** ********************************************************************** Top of Data ******************************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2015049-18.02.15/14:20:54 To: 2015049-18.02.15/14:22:01
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN(#) MDET/HMSG
000001  N 0200000>SYS1      2015049 14:21:31.91 JOB00051 00000281  $HASP100 YVESA    ON INTRDR                              FROM TSU00050
000002  N 0000000 SYS1      2015049 14:21:31.92 JOB00051 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
000003  N 0200000>SYS1      2015049 14:21:31.96 JOB00052 00000281  $HASP100 YVESB    ON INTRDR                              FROM TSU00050
000004  N 0020000>SYS1      2015049 14:21:31.98 JOB00051 00000281  ICH70001I YVES     LAST ACCESS AT 13:23:37 ON WEDNESDAY, FEBRUARY 18
000005  N 4000000 SYS1      2015049 14:21:31.99 JOB00051 00000090  $HASP373 YVESA    STARTED - INIT 1    - CLASS A - SYS SYS1
000006  N 0000000 SYS1      2015049 14:21:31.98 JOB00052 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
000007  N 0000000>SYS1      2015049 14:21:32.00 JOB00051 00000281  IEF403I YVESA - STARTED - TIME=14.21.32
000008  N 0200000>SYS1      2015049 14:21:32.04 JOB00053 00000281  $HASP100 YVESC    ON INTRDR                              FROM TSU00050
000009  N 0000000 SYS1      2015049 14:21:32.06 JOB00053 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
…
000035  N 0000000 SYS1      2015049 14:21:32.62 JOB00054 00000090  IEF404I YVESD - ENDED - TIME=14.21.32
000036  N 4000000>SYS1      2015049 14:21:32.63 JOB00054 00000281  $HASP395 YVESD    ENDED
000037  N 0000000 SYS1      2015049 14:21:32.67 JOB00053 00000090  IEF404I YVESC - ENDED - TIME=14.21.32
000038  N C000000>SYS1      2015049 14:21:32.68          00000281  $HASP309 INIT 4    INACTIVE ******** C=ABCDE
000039  N 0000000 SYS1      2015049 14:21:32.69 JOB00052 00000090  IEF404I YVESB - ENDED - TIME=14.21.32
000040  N 4000000>SYS1      2015049 14:21:32.70 JOB00053 00000281  $HASP395 YVESC    ENDED
000041  N 4000000>SYS1      2015049 14:21:32.71 JOB00052 00000281  $HASP395 YVESB    ENDED
000042  N C000000>SYS1      2015049 14:21:32.75          00000281  $HASP309 INIT 3    INACTIVE ******** C=ABC
000043  N C000000>SYS1      2015049 14:21:32.79          00000281  $HASP309 INIT 2    INACTIVE ******** C=AB
000044  N 0000000>SYS1      2015049 14:21:32.82          00000281  IEF196I IGD101I SMS ALLOCATED TO DDNAME (SYS00117)
000045  N 0000000>SYS1      2015049 14:21:32.82          00000281  IEF196I         DSN (LOGR.SYSPLEX.OPERLOG.A0000090              )
000046  N 0000000>SYS1      2015049 14:21:32.83          00000281  IEF196I         STORCLAS (SMS) MGMTCLAS (        ) DATACLAS (
000047  N 0000000>SYS1      2015049 14:21:32.83          00000281  IEF196I         VOL SER NOS FOR DATA COMPONENT= Y3WORK
000048  M 0000000 SYS1      2015049 14:21:32.90          00000290  IXG283I OFFLOAD DATASET LOGR.SYSPLEX.OPERLOG.A0000090 160
000049  D                                       160 00000290  ALLOCATED NEW FOR LOGSTREAM SYSPLEX.OPERLOG
000050  E                                       160 00000290  CISIZE=4K, SIZE=442368
000051  M 0000000 SYS1      2015049 14:21:33.11          00000290  IXG284I OFFLOAD DATASET LOGR.SYSPLEX.OPERLOG.A0000082 161
000052  E                                       161 00000290  DELETED FOR LOGSTREAM SYSPLEX.OPERLOG
==MSG>  ======================Selection and Statistics=======================
======  System       Lines  Filtered   MDBRecs
======  SYS1            52         0        46
==MSG>  ==========================Message Line Help============================
======  !!!      !!       !       !          !    !   !        !
======  !!!      !!       !       !          !    !   !       11- Message/Command
======  !!!      !!       !       !          !    !  10- - User Exit/MPF Request Flags
======  !!!      !!       !       !          !    9 - Multi-Line Id number
======  !!!      !!       !       !         8 - Console/Job Id/Jobname
======  !!!      !!       !       7 - Time - HH:MM:SS.hh
======  !!!      !!       6 - Date - YYYYDDD
======  !!!      !5 - System Id
======  !!!      4 - Message Suppression
======  !!3 - Routing Codes
======  !2 - Message Command Indicator
======  1 - Message Indicator
======  ------------------------------------------------------------------------
======  1 - Message Indicator:
======      N - Single-Line Message
…
```

Figure 30: OPERLOG Viewer – TSO Operlog display

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The first display lines are given information – using ISPF NOTE – about the date/time selection parameters:

- `LOGSTREAM(SYSPLEX.OPERLOG)`
  `or`
  `DATASET(YCOS.OPERLOG.D%%%%%%.J%%%.H%%)`
  `or`
  `BOTH(YVES.OPERLOG.D%%%%%%.J%%%.H%% and SYSPLEX.OPERLOG)`
  - Data used as input

- `Date/Time From: jjjjddd-dd.mm.jj/hh:mm:ss`
  `To: jjjjddd-dd.mm.jj/hh:mm:ss`
  - Date/Time selection

- `- Around: 003 secs`
  - Optional: only if AROUND has been given

- `Statistics at the End of the Data`
  - at the end of the display (see Pull-Down Menu – Operlog Options) a help about the displayed data format

- `Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN(#) MDET/HMSG`
  Many primary and/or line commands are available:
  - REFR: Refresh of the data; only on Logstream selection. See REFR – Refresh
  - MDET: Message detail. See DETAIL/MDET – Message Detail
  - MULT: Show multiple line messages in single lines. See MULT – Unsplit multiline messages
  - XMSG: Exclude messages from display. See XMSG – Exclude Message
  - OMSG: Show only selected messages. See OMSG – Only Message
  - XTYP: Exclude messages with selected suffix from display. See XTYP – Exclude Message Type
  - OTYP: Show only selected message suffixes. See OTYP – Only Message Type
  - NXLN: UnX a given number of hidden lines. See NXLN – UnX lines
  - CMDO: run MVS (and subsystems) commands using the SDSF API. See CMDO – MVS Command
  - HMSG: insert help line notes after the selected line. See HMSG – Message Help

Optionaly at the end of the display – also per ISPF NOTE – the selection parameters will be displayed – message info (see Pull-Down Menu – Operlog Options):

- `==========Selection and Statistics==========`
- `Selection System : system name filter (x=1-16)`
- `Selection Jobname: job name filter (x=1-16)`
- `Selection Job Id : job id filter (x=1-16)`
- `Selection Msg Id : message id filter (x=1-16)`
- `Selection Text   : text filter (x=1-16)`

Statistics about the selected (or not selected) data will be displayed (see Pull-Down Menu – Operlog Options):

- `System       Lines  Filtered   MDBRecs`
- `sysid           ##        ##        ##`
  - **`Sysid`** = System name as given in OPERLOG, the user has authority
  - **`## Lines`** = number of lines displayed
  - **`## Filtered`** = number of input lines filtered
  - **`## MDBRecs`** = number of input MDB records *(one MDB record can contain many lines)*

- `Non-Authorized Systems: sysid`
  - **`Sysid`** = for this system the user has no authority – see Authorization

The data will be displayed in SYSLOG format.

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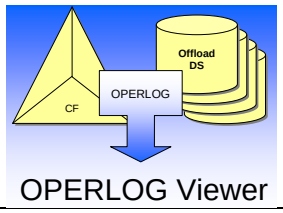
Optionally a help for the displayed data can be shown:

```
  File  Edit  Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
VIEW       SYS04356.T143648.RA000.YVES.R0100047           Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> PAGE
****** ***************************** Top of Data ******************************
000017  N 0080000 YSYS     2011168 19:19:41.81 SHUTD    00000090  VTAMAP10I Is
==MSG>  ======================Selection and Statistics=======================
======  Selection System : YSYS
======  System       Lines  Filtered   Records
======  YSYS            17         0        16
==MSG>  ============================Message Line Help============================
======  !!!      !!        !       !           !    !   !        !
======  !!!      !!        !       !           !    !   !       11- Message/Com
======  !!!      !!        !       !           !    !  10- - User Exit/MPF Reus
======  !!!      !!        !       !           !    9 - Multi-Line Id number
======  !!!      !!        !       !           8 - Console/Job Id/Jobname
======  !!!      !!        !       7 - Time - HH:MM:SS.hh
======  !!!      !!        6 - Date - YYYYDDD
======  !!!      !5 - System Id
======  !!!      4 - Message Suppression
======  !!3 - Routing Codes
======  !2 - Message Command Indicator
======  1 - Message Indicator
======  -------------------------------------------------------------------------
======  1 - Message Indicator:
======      N - Single-Line Message
======      W - Single-Line Message with Reply
======      M - Multi-Line - First Line
======      L - Multi-Line - Label
======      D - Multi-Line - Data
```

Figure31: OPERLOG Message Help



1.4.1 HMSG – Message Help

Message Help will be displayed automatically at the end of the report, if the option “Message Help – On” has been selected. See Pull-Down Menu – Operlog Options

Message Help can be inserted as a ISPF Note after any line using the HMSG ISPF Line Command.

```
M 5060000 YSYS     2005334 06:52:58.34          00000290  IOS079I 1234,*...
E                                          109 00000290          FOR A ...
==========================Message Line Help==========================
!!!      !!        !       !           !    !   !        !
!!!      !!        !       !           !    !   !       11- Message/Command
!!!      !!        !       !           !    !  10- - User Exit/MPF Request Flags
!!!      !!        !       !           !    9 - Multi-Line Id number
!!!      !!        !       !          8 - Console/Job Id/Jobname
!!!      !!        !      7 - Time - HH:MM:SS.hh
!!!      !!       6 - Date - YYYYDDD
!!!      !5 - System Id
!!!      4 - Message Suppression
!!3 - Routing Codes
!2 - Message Command Indicator
1 - Message Indicator
------------------------------------------------------------------------
1 - Message Indicator:
    N - Single-Line Message
    W - Single-Line Message with Reply
    M - Multi-Line - First Line
    L - Multi-Line - Label
    D - Multi-Line - Data
    E - Multi-Line - Data/End
    O - Log Command Input
    S - Line continuation
    X - Entry from source other than Hardcopy or Log command
2 - Message Command Indicator:
    C - Operator Command
    R - Command Response
    I - Internal Command
3 - Routing Codes - Bit Indicators - examples:
    0200000 - Routing Code 7 - Binary 0000 0010 0000 ...
                               Rtcde: 1234 5678
    Routing Code Meaning:
    1      Operator Action
    2      Operator Information
    3      Tape Pool
    4      Direct Access Pool
    5      Tape Library
    6      Disk Library
    7      Unit Record Pool
    8      Teleprocessing Control
    9      System Security
    10     System/Error Maintenance
    11     Programmer Information
    12     Emulation
    13-20  For customer use only.
    21-28  For subsystem use only.
```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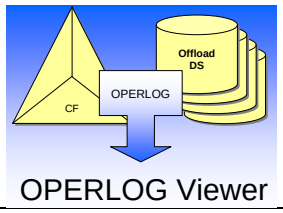
```
     -----  Route Code below not shown!
     29     Disaster recovery.
     30-40  For IBM use only.
     41     The message gives information about JES3 job status.
     42     The message gives general information about JES2 or JES3.
     43-64  For JES use only.
     65-96  Messages associated with particular processors.
     97-128 Messages associated with particular devices.
4 - Message Suppression - readable - indicator:
     >      Message suppressed by MPF
5 - System Id
6 - Date - YYYYDDD
7 - Time - HH:MM:SS.hh
8 - Content could be:
     Id of Console issuing command
     Id or Jobname of Job issuing message
9 - On Multi-Line Messages: Multi-Line Id number
10- User Exit/MPF Request Flags:
     Request Flag 1 - first Byte - bit meaning:
          80x - Message Text was changed"
          40x - Routing Codes were changed"
          20x - Descriptor Codes were changed"
          10x - Message was queued to a specific active Console"
          08x - Message was queued uncond. to a specific Console"
          04x - Message was queued by Routing Codes only"
          04x - Console Id was changed"
          01x - Minot Lines were prcessed"
     Request Flag 2 - second byte - bit meaning:
          80x - Message was delete"
          40x - MPF Suppression overridden"
          20x - Message forced to Hardcopy"
          10x - Message bypassed Hardcopy"
          08x - Message forced Hardcopy only"
          04x - Message boradcasted to active Consoles"
          02x - Broadcasting of message suppressed"
          01x - Message not retained by AMRF"
     Request Flag 3 - third byte - bit meaning:
          80x - Message retained by AMRF"
          40x - Retrieval Key changed"
          20x - 4-Byte Console ID changed"
          10x - Message Type Flags changed"
          08x - Automation no required"
          04x - Automation is required and/or Automation token"
          02x - Message only Hardcopy"
          01x - Message was a UD Message"
     Suppression Flag 1 - fourth byte - bit meaning:
          80x - Message not serviced by any WTO User Exit"
          40x - ESTAE Error in IEAVX600"
          20x - Message not serviced because of incomp. request"
          10x - Automation requested"
          08x - Message not queued to any Console"
          04x - Message suppressed by a subsystem"
          02x - Message suppressed by WTO User Exit"
          01x - Message Suppressed by MPF"
11- Message/Command
```



1.4.2 DETAIL/MDET – Message Detail

On LOGSTREAM display the details – MDB *(Message Data Block)* – about a message can be displayed. Enter “DETAIL” or “MDET” in the command line and place the cursor on the wanted line.

It could be useful to set a PFK to DETAIL within OPERLOG!

MDET could also be used as a line command. Please remember to code “:MDET” if the line command is set on a PFK.

For a description of the MDB *(Message Data Block)* see Macro IEAVM105 in SYS1.MACLIB.

```
EDIT       SYS14098.T162345.RA000.YVES.R0100057                                 Columns 00001 00124
 Command ===> ____________________________________________________________ Scroll ===> CSR
 ****** ********************************************** Top of Data ********************************************************
 ======  Selection Line:34 Date:2014098 Time:16:04:01.94
 ====== ==============================================
 000001 ================================================================================================================================
 000002  Message:
 000003   $HASP373 YVES     STARTED
 000004 --------------------------------------------------------------------------------------------------------------------------------
 000005  OPERLOG Information
 000006    MDB=Message Data Block - see IEAVM105
 000007 --------------------------------------------------------------------------------------------------------------------------------
 000008  Raw MDB
 000009    reci=....MDB.............16.04.01.94.2014098.............SYS1   .TSU00037........MVS.HBB7780.............................
 000010    hex1=0600DCC4000003000008FF4FF4FF4FF0FFFFFFF0000000000000EEEF4444EEEFFFFF00000007DEE4CCCFFFF44000000000000000000020000003
 000011    hex2=1A01442000010801007A16B04B01B940201409800000000000028210000324000371202000045208227780000000000000000040800000009
 000012    cols=0----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0----+----1----+
 000013 --------------------------------------------------------------------------------------------------------------------------------
 000014  Length of MDB
 000015    MDBLEN=362
 000016  MDBType
 000017    MDBTYPE=0001
 000018  MDBMID
 000019    MDBMID=MDB
 000020 --------------------------------------------------------------------------------------------------------------------------------
 000021  Length of General Object (MDBG)
```

Figure 32: OPERLOG Message Detail

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1.4.3 XMSG – Exclude Message

On OPERLOG display (LOGSTREAM and MDB saved), messages could be excluded from display using the XMSG primary command; this is usefull since the multiline messages will also be treated (which will not be the case using the ISPF Edit X command).
On the XMSG command a message id must be given

Command syntax:

```
XMSG msgid
```

Sample:

```
XMSG $HA
```

All given message ids will be treated as:

- Generic
- Starting on position 60 within the display

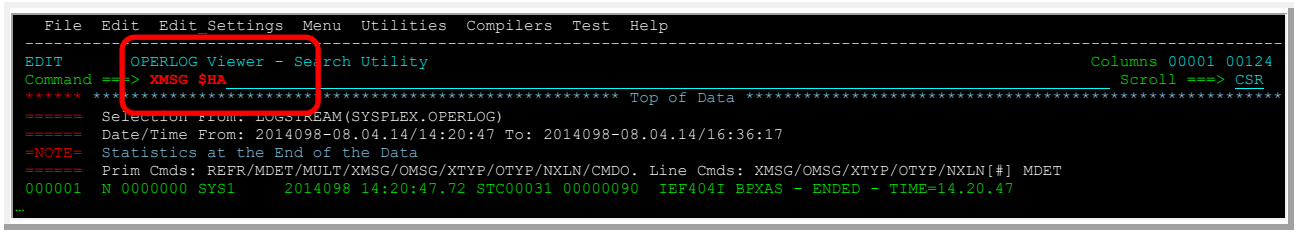
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility Columns 00001 00124
Command ===> XMSG $HA Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:36:17
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47

Figure 33: XMSG – Exclude message – primary command

XMSG can also be given as a line command. Without value it will exclude the selected message from being displayed. Using XMSG with a number – like XMSG3 – it will select only the first 3 characters of the message:

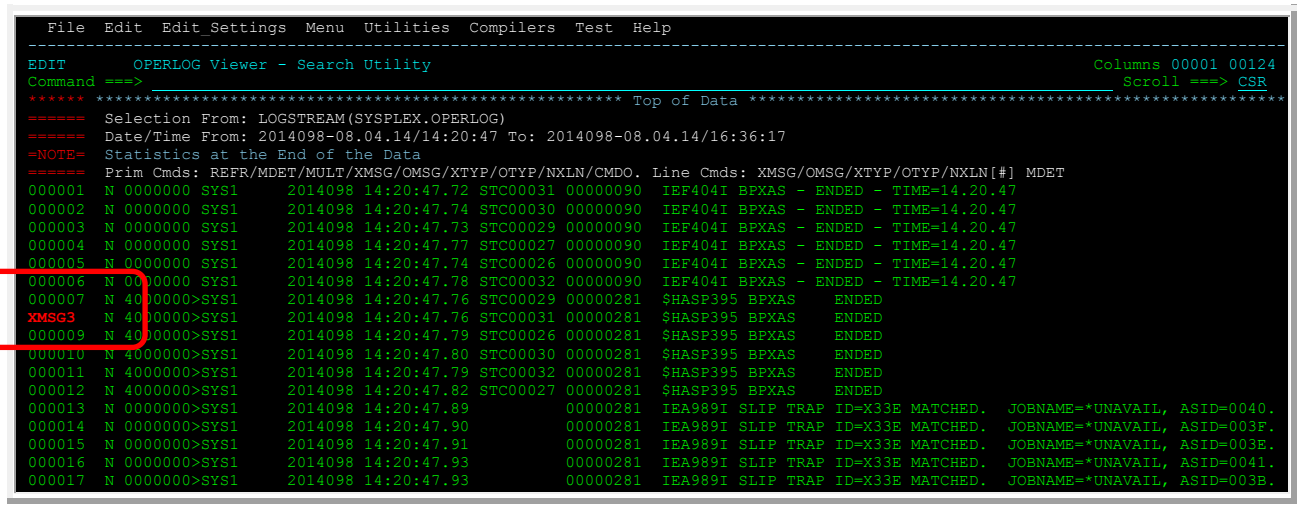

Figure 34: XMSG – Exclude message – line command

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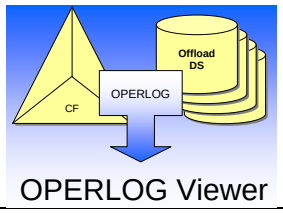

The result will exclude the lines from the display – using ISPF HIDE.

```
 File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                          Columns 00001 00124
Command ===> ____________________________________________________________________________________ Scroll ===> CSR
****** ***************************************************** Top of Data ********************************************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:34:18
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001  N 0000000 SYS1     2014098 14:20:47.72 STC00031 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000002  N 0000000 SYS1     2014098 14:20:47.74 STC00030 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000003  N 0000000 SYS1     2014098 14:20:47.73 STC00029 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000004  N 0000000 SYS1     2014098 14:20:47.77 STC00027 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000005  N 0000000 SYS1     2014098 14:20:47.74 STC00026 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000006  N 0000000 SYS1     2014098 14:20:47.78 STC00032 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000013  N 0000000>SYS1     2014098 14:20:47.89          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=0040.
000014  N 0000000>SYS1     2014098 14:20:47.90          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=003F.
000015  N 0000000>SYS1     2014098 14:20:47.91          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=003E.
000016  N 0000000>SYS1     2014098 14:20:47.93          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=0041.
000017  N 0000000>SYS1     2014098 14:20:47.93          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=003B.
000018  N 0000000>SYS1     2014098 14:20:47.96          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=003C.
000025  N 0000000>SYS1     2014098 15:47:07.48          00000281  IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00058
000026  N 0000000>SYS1     2014098 15 +-------------------------------------------------+ LINKLIB                          RETA
000027  N 0000000>SYS1     2014098 15 ! 16 messages and 16 lines have been excluded - $HA !
000028  N 0000000>SYS1     2014098 16 +-------------------------------------------------+ - TIME=16.03.27
000031  N 0000000>SYS1     2014098 16:03:32.97          00000281  IEA989I SLIP TRAP ID=X33E MATCHED.  JOBNAME=*UNAVAIL, ASID=0039.
```

Figure 35: OPERLOG display and XMSG

An information messge will inform about the number of messages and lines excluded.

Use primary command “RESet HIDE” to see the hidden lines.

```
 File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                          Columns 00001 00124
Command ===> ____________________________________________________________________________________ Scroll ===> CSR
****** ***************************************************** Top of Data ********************************************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:36:17
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001  N 0000000 SYS1     2014098 14:20:47.72 STC00031 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000002  N 0000000 SYS1     2014098 14:20:47.74 STC00030 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000003  N 0000000 SYS1     2014098 14:20:47.73 STC00029 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000004  N 0000000 SYS1     2014098 14:20:47.77 STC00027 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000005  N 0000000 SYS1     2014098 14:20:47.74 STC00026 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000006  N 0000000 SYS1     2014098 14:20:47.78 STC00032 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
- - -  -  -  
```

1.4.4 OMSG – Only Message

On OPERLOG display (LOGSTREAM and MDB saved), only selected messages could be displayed using the OMSG primary command all other messages will be excluded from being displayed; this is usefull since the multiline messages will also be treated (which will not be the case using the ISPF Edit X ALL and Find command).
On the OMSG command a message id must be given

Command syntax:

```
OMSG msgid
```

Sample:

```
OMSG $HASP
```

All given message ids will be treated as:

- Generic
- Starting on position 60 within the display

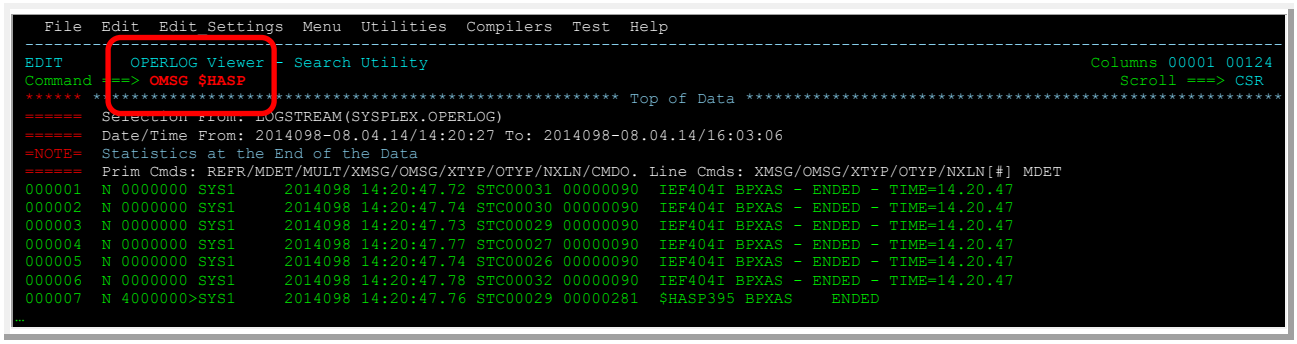
File Edit Edit Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===> OMSG $HASP
Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000002 N 0000000 SYS1 2014098 14:20:47.74 STC00030 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000003 N 0000000 SYS1 2014098 14:20:47.73 STC00029 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000004 N 0000000 SYS1 2014098 14:20:47.77 STC00027 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000005 N 0000000 SYS1 2014098 14:20:47.74 STC00026 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000006 N 0000000 SYS1 2014098 14:20:47.78 STC00032 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000007 N 4000000>SYS1 2014098 14:20:47.76 STC00029 00000281 $HASP395 BPXAS ENDED

Figure 37: OMSG – Only message – primary command

OMSG can also be given as a line command. Without value it will only display the selected messages (all others will be excluded). Using OMSG with a number – like OMSG4 – it will select only the first 4 characters of the message:

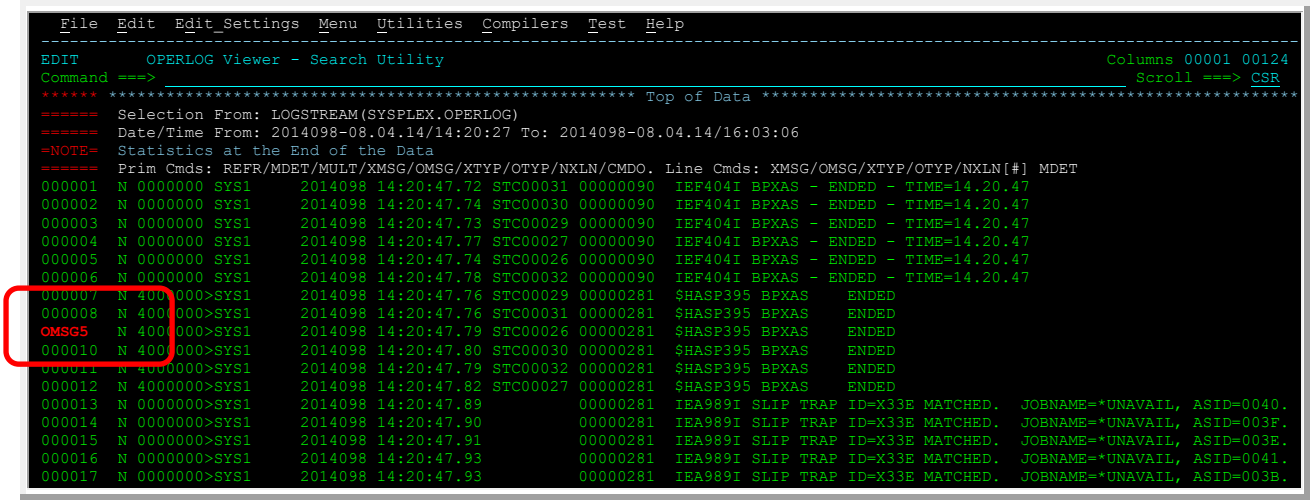

Figure 38: OMSG – Only message – line command

The result will exclude the other lines from the display – using ISPF HIDE.

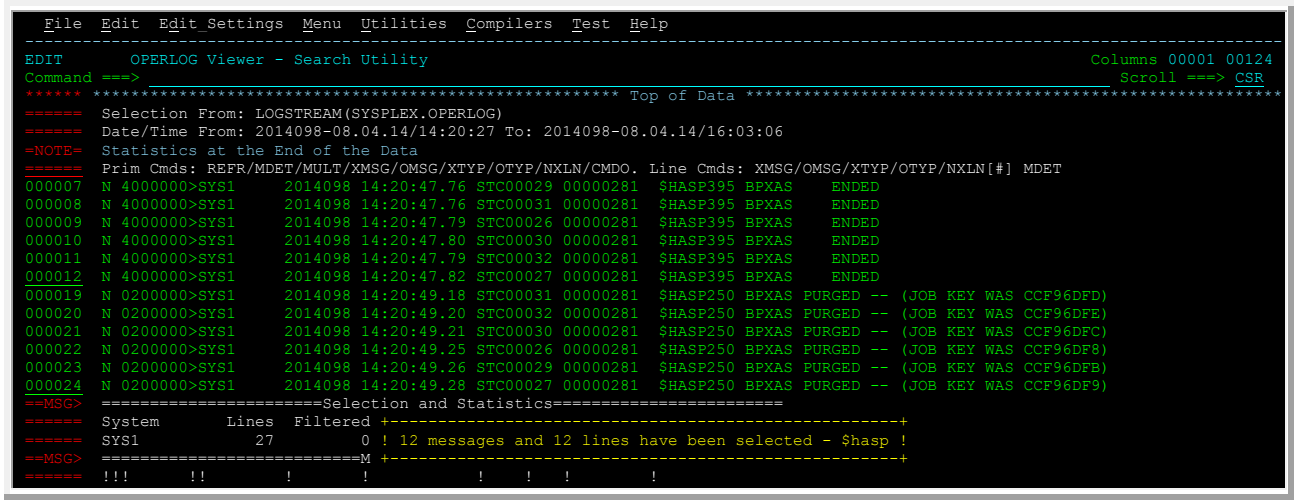
File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility Columns 00001 00124
Command ===> Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000007 N 4000000>SYS1 2014098 14:20:47.76 STC00029 00000281 $HASP395 BPXAS ENDED
000008 N 4000000>SYS1 2014098 14:20:47.76 STC00031 00000281 $HASP395 BPXAS ENDED
000009 N 4000000>SYS1 2014098 14:20:47.79 STC00026 00000281 $HASP395 BPXAS ENDED
000010 N 4000000>SYS1 2014098 14:20:47.80 STC00030 00000281 $HASP395 BPXAS ENDED
000011 N 4000000>SYS1 2014098 14:20:47.79 STC00032 00000281 $HASP395 BPXAS ENDED
000012 N 4000000>SYS1 2014098 14:20:47.82 STC00027 00000281 $HASP395 BPXAS ENDED
000019 N 0200000>SYS1 2014098 14:20:49.18 STC00031 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFD)
000020 N 0200000>SYS1 2014098 14:20:49.20 STC00032 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFE)
000021 N 0200000>SYS1 2014098 14:20:49.21 STC00030 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFC)
000022 N 0200000>SYS1 2014098 14:20:49.25 STC00026 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF8)
000023 N 0200000>SYS1 2014098 14:20:49.26 STC00029 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFB)
000024 N 0200000>SYS1 2014098 14:20:49.28 STC00027 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF9)
==MSG> ==========Selection and Statistics==========
====== System Lines Filtered +----------+
====== SYS1 27 0 ! 12 messages and 12 lines have been selected - $hasp !
==MSG> ==========M +----------+

Figure 39: OPERLOG display and OMSG

An information messge will inform about the number of messages and lines selected.

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Use primary command “RESet HIDE” to see the hidden lines.

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                    Columns 00001 00124
Command ===> _____________________________________________________________________________ Scroll ===> CSR
****** ********************************************** Top of Data ********************************************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
- - -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -   6 Line(s) not Displayed
000007  N 4000000>SYS1     2014098 14:20:47.76 STC00029 00000281  $HASP395 BPXAS    ENDED
000008  N 4000000>SYS1     2014098 14:20:47.76 STC00031 00000281  $HASP395 BPXAS    ENDED
000009  N 4000000>SYS1     2014098 14:20:47.79 STC00026 00000281  $HASP395 BPXAS    ENDED
000010  N 4000000>SYS1     2014098 14:20:47.80 STC00030 00000281  $HASP395 BPXAS    ENDED
000011  N 4000000>SYS1     2014098 14:20:47.79 STC00032 00000281  $HASP395 BPXAS    ENDED
000012  N 4000000>SYS1     2014098 14:20:47.82 STC00027 00000281  $HASP395 BPXAS    ENDED
- - -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -   6 Line(s) not Displayed
000019  N 0200000>SYS1     2014098 14:20:49.18 STC00031 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFD)
000020  N 0200000>SYS1     2014098 14:20:49.20 STC00032 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFE)
000021  N 0200000>SYS1     2014098 14:20:49.21 STC00030 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFC)
000022  N 0200000>SYS1     2014098 14:20:49.25 STC00026 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF8)
000023  N 0200000>SYS1     2014098 14:20:49.26 STC00029 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFB)
000024  N 0200000>SYS1     2014098 14:20:49.28 STC00027 00000281  $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF9)
- - -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -   3 Line(s) not Displayed
==MSG>  ======================Selection and Statistics=======================
======  System       Lines  Filtered   Records
```

Figure 40: OPERLOG display and OMSG – Reset hide

The OMSG command can be also be combined with XMSG – sample:

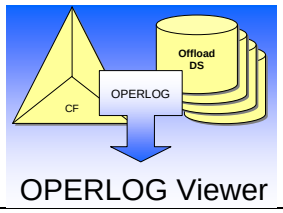
`OMSG IEF`

- Select only messages starting with IEF

and than

`XMSG IEF196`

- But do not show me the IEF196 messages



1.4.5 XTYP – Exclude Message Type

On OPERLOG display (LOGSTREAM and MDB saved), message suffixes could be excluded from display using the XTYP primary command; this is usefull since the multiline messages will also be treated (which will not be the case using the ISPF Edit X command). On the XTYP command a message suffix must be given

Command syntax:

```
XTYP msg_suffix
```

Sample:

```
XTYP I
```

The XTYP command could also specify more characters:

Sample:

```
XTYP 9I
```

Will not display all messages ending with 9I

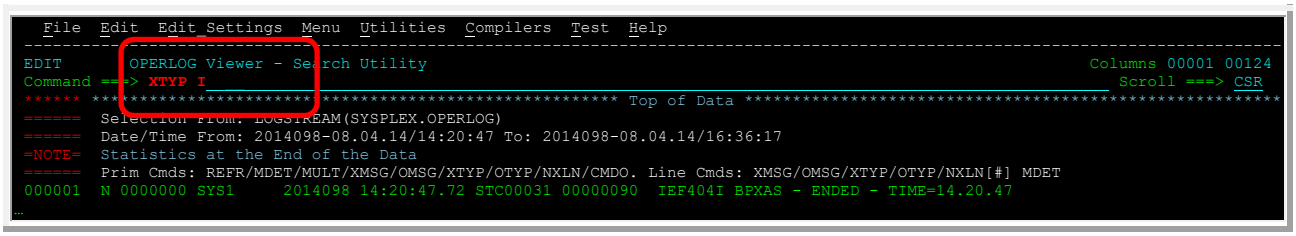

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility Columns 00001 00124
Command ===> XTYP I Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:36:17
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47

Figure 41: XTYP – Exclude message suffix – primary command

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XTYP can also be given as a line command. Without value it will exclude the selected message suffix last character from being displayed. Using XTYP with a number – like XTYP2 – it will select the last 2 characters of the message:

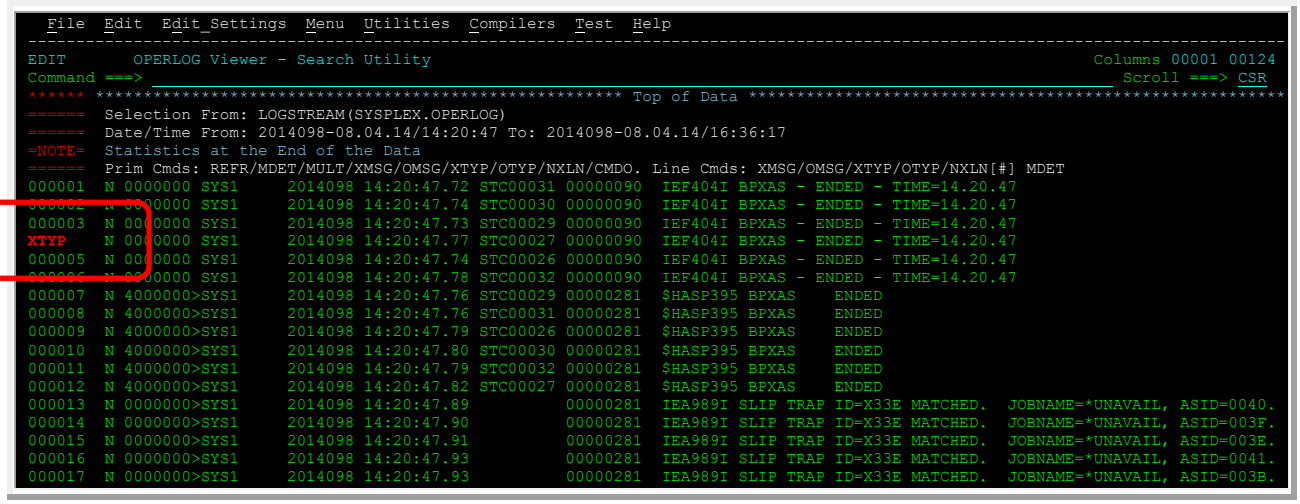


Figure 42: XTYP – Exclude message suffix – line command

The result will exclude the lines from the display – using ISPF HIDE.

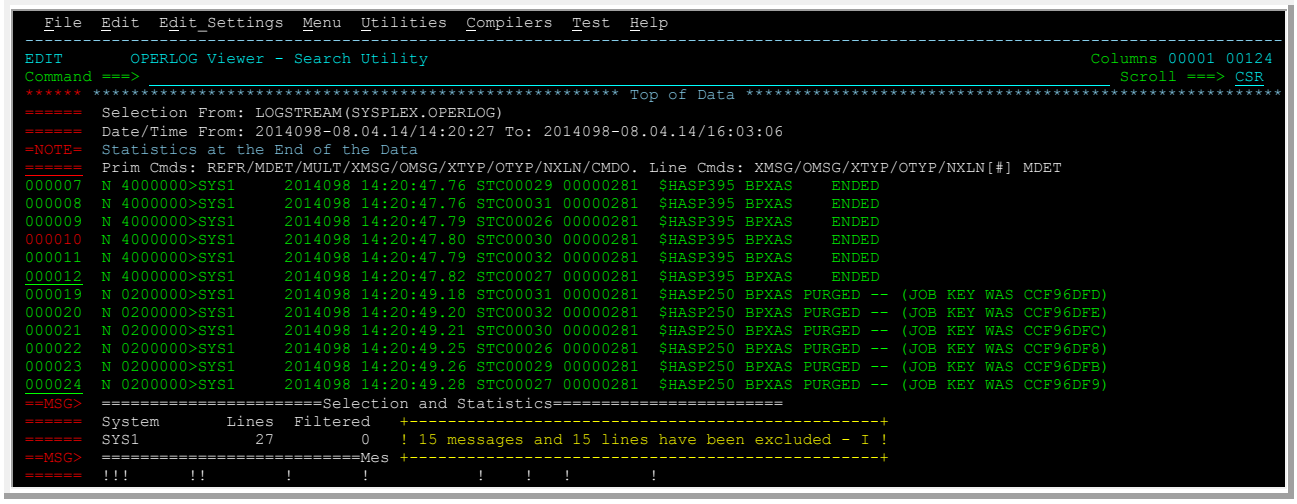
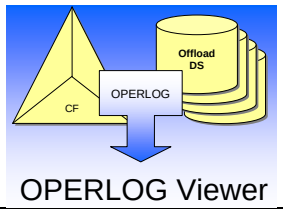

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Command ===>
Scroll ===> CSR
Top of Data
Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000007 N 4000000>SYS1 2014098 14:20:47.76 STC00029 00000281 $HASP395 BPXAS ENDED
000008 N 4000000>SYS1 2014098 14:20:47.76 STC00031 00000281 $HASP395 BPXAS ENDED
000009 N 4000000>SYS1 2014098 14:20:47.79 STC00026 00000281 $HASP395 BPXAS ENDED
000010 N 4000000>SYS1 2014098 14:20:47.80 STC00030 00000281 $HASP395 BPXAS ENDED
000011 N 4000000>SYS1 2014098 14:20:47.79 STC00032 00000281 $HASP395 BPXAS ENDED
000012 N 4000000>SYS1 2014098 14:20:47.82 STC00027 00000281 $HASP395 BPXAS ENDED
000019 N 0200000>SYS1 2014098 14:20:49.18 STC00031 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFD)
000020 N 0200000>SYS1 2014098 14:20:49.20 STC00032 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFE)
000021 N 0200000>SYS1 2014098 14:20:49.21 STC00030 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFC)
000022 N 0200000>SYS1 2014098 14:20:49.25 STC00026 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF8)
000023 N 0200000>SYS1 2014098 14:20:49.26 STC00029 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DFB)
000024 N 0200000>SYS1 2014098 14:20:49.28 STC00027 00000281 $HASP250 BPXAS PURGED -- (JOB KEY WAS CCF96DF9)
==MSG> Selection and Statistics
System Lines Filtered
SYS1 27 0
! 15 messages and 15 lines have been excluded - I !
==MSG> Mes

Figure 43: OPERLOG display and XTYP

An information messge will inform about the number of messages and lines excluded.



Use primary command “RESet HIDE” to see the hidden lines.

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                    Columns 00001 00124
Command ===> ____________________________________________________________________________ Scroll ===> CSR
****** ***************************************************** Top of Data ********************************************************
======  Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======  Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE=  Statistics at the End of the Data
======  Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
- - -  -  -  
```

1.4.6 OTYP – Only Message Type

On OPERLOG display (LOGSTREAM and MDB saved) only selected message suffixes could be displayed using the OTYP primary command all other message suffixes will be excluded from being displayed; this is usefull since the multiline messages will also be treated (which will not be the case using the ISPF Edit X ALL and Find command).
On the OTYP command a message suffix must be given

Command syntax:

```
OTYP msg_suffix
```

Sample:

```
OTYP I
```

The OTYP command could also specify more characters:

Sample:

```
OTYP 9I
```

Will only display messages ending with 9I

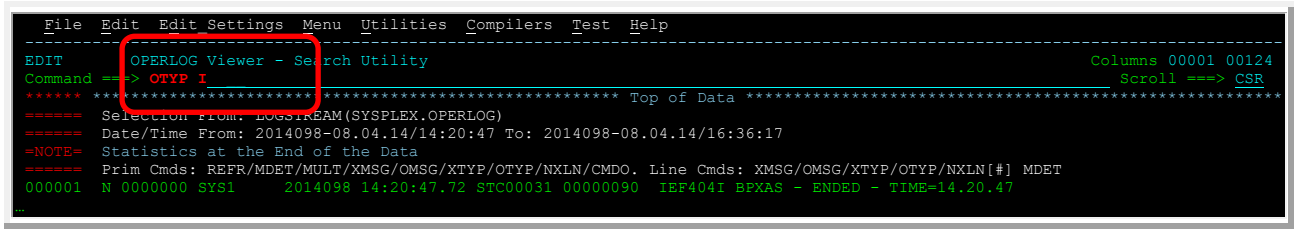

File Edit Edit Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility Columns 00001 00124
Command ===> OTYP I Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:36:17
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47

Figure 45: OTYP – Only message suffix – primary command

OTYP can also be given as a line command. Without value it will only display the selected message suffixes (all others will be excluded). Using OTYP with a number – like OTYP4 – it will select only the last 4 characters of the message:

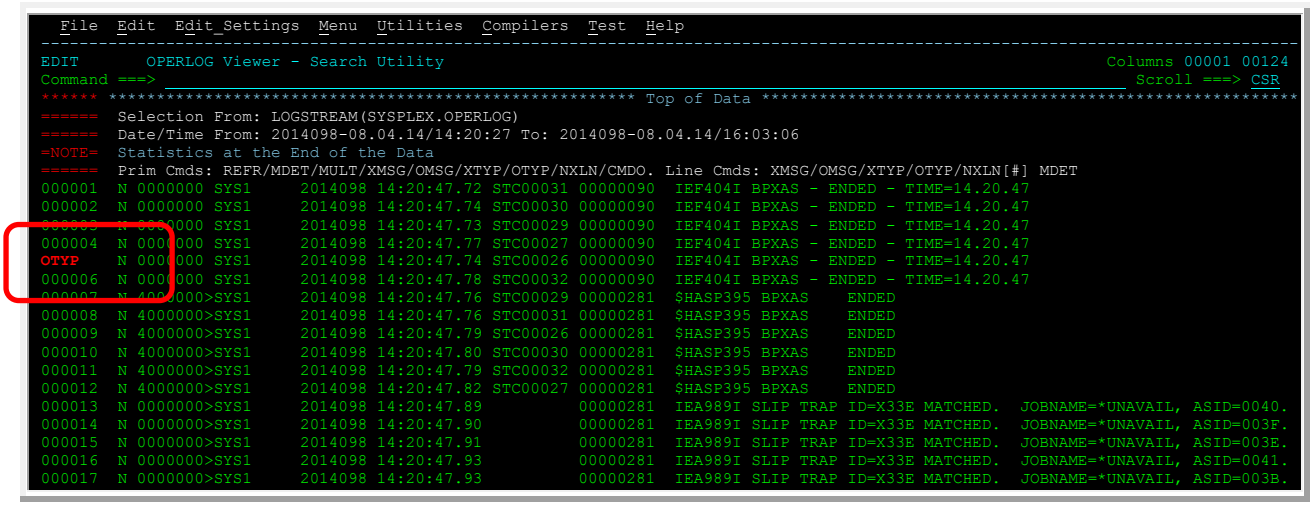


Figure 46: OTYP – Only message suffix – line command

The result will exclude the other lines from the display – using ISPF HIDE.

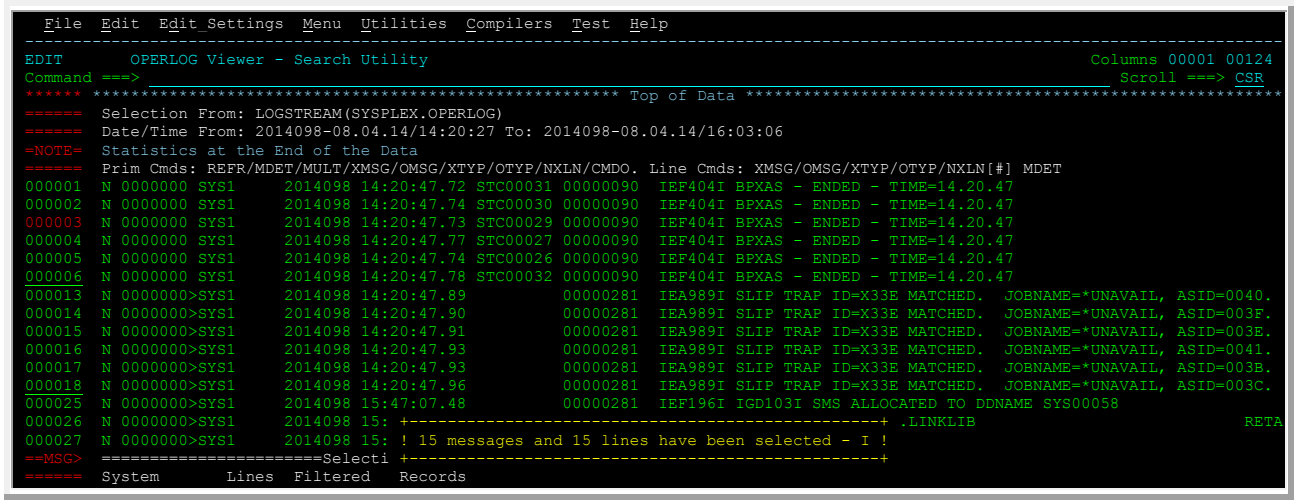

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===>
Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000002 N 0000000 SYS1 2014098 14:20:47.74 STC00030 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000003 N 0000000 SYS1 2014098 14:20:47.73 STC00029 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000004 N 0000000 SYS1 2014098 14:20:47.77 STC00027 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000005 N 0000000 SYS1 2014098 14:20:47.74 STC00026 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000006 N 0000000 SYS1 2014098 14:20:47.78 STC00032 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000013 N 0000000>SYS1 2014098 14:20:47.89 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0040.
000014 N 0000000>SYS1 2014098 14:20:47.90 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003F.
000015 N 0000000>SYS1 2014098 14:20:47.91 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003E.
000016 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0041.
000017 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003B.
000018 N 0000000>SYS1 2014098 14:20:47.96 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003C.
000025 N 0000000>SYS1 2014098 15:47:07.48 00000281 IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00058
000026 N 0000000>SYS1 2014098 15: +----------+ .LINKLIB RETA
000027 N 0000000>SYS1 2014098 15: ! 15 messages and 15 lines have been selected - I !
==MSG> ==========Selecti +----------+
====== System Lines Filtered Records

Figure 47: OPERLOG display and OTYP

An information messge will inform about the number of messages and lines selected.

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Use primary command “RESet HIDE” to see the hidden lines.

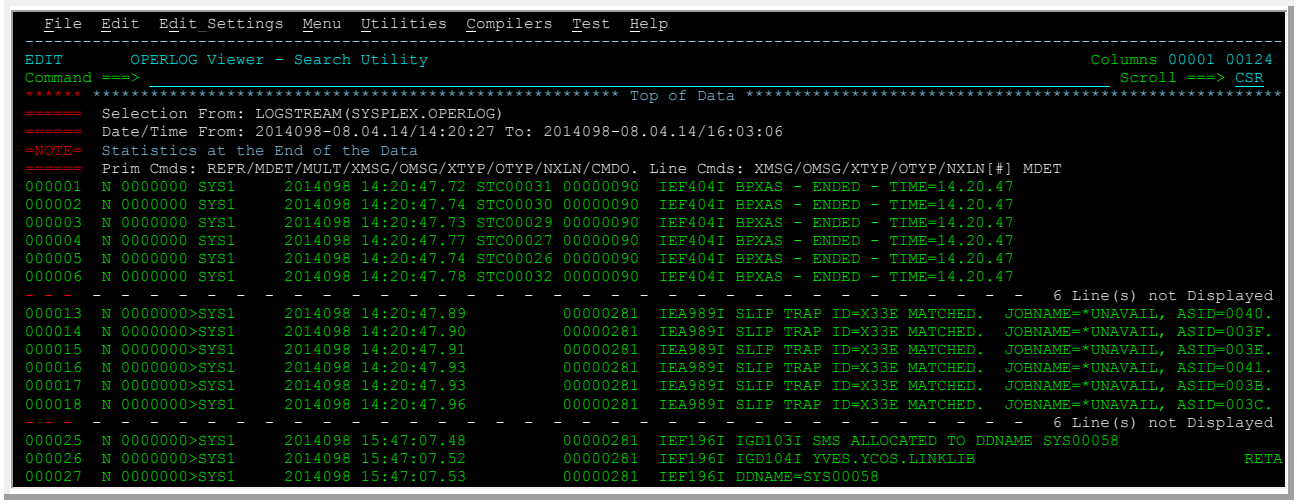
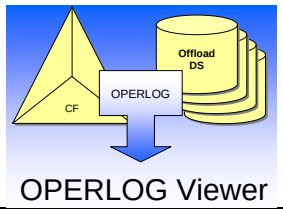

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===>
Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000002 N 0000000 SYS1 2014098 14:20:47.74 STC00030 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000003 N 0000000 SYS1 2014098 14:20:47.73 STC00029 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000004 N 0000000 SYS1 2014098 14:20:47.77 STC00027 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000005 N 0000000 SYS1 2014098 14:20:47.74 STC00026 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000006 N 0000000 SYS1 2014098 14:20:47.78 STC00032 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
6 Line(s) not Displayed
000013 N 0000000>SYS1 2014098 14:20:47.89 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0040.
000014 N 0000000>SYS1 2014098 14:20:47.90 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003F.
000015 N 0000000>SYS1 2014098 14:20:47.91 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003E.
000016 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0041.
000017 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003B.
000018 N 0000000>SYS1 2014098 14:20:47.96 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003C.
6 Line(s) not Displayed
000025 N 0000000>SYS1 2014098 15:47:07.48 00000281 IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00058
000026 N 0000000>SYS1 2014098 15:47:07.52 00000281 IEF196I IGD104I YVES.YCOS.LINKLIB RETA
000027 N 0000000>SYS1 2014098 15:47:07.53 00000281 IEF196I DDNAME=SYS00058

Figure 48: OPERLOG display and OTYP – Reset hide



1.4.7 NXLN – UnX lines

On OPERLOG display (LOGSTREAM and MDB saved) after commands like XMSG, OMSG, XTYP or OTYP the display will be composed of visible lines, the one selected, and excluded lines. It could be important to understand/see the context before and after the visible lines. The primary and line command NXLN could be used to UnX a given number of lines – Default is 2.

Command syntax:

```
NXLN [# lines|2]
```

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                      Columns 00001 00124
Command ===> NXLN                                                                             Scroll ===> CSR
****** ***************************************************** Top of Data ******************************************************
======   Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
======   Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE=   Statistics at the End of the Data
======   Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001   N 0000000 SYS1     2014098 14:20:47.72 STC00031 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000002   N 0000000 SYS1     2014098 14:20:47.74 STC00030 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000003   N 0000000 SYS1     2014098 14:20:47.73 STC00029 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000004   N 0000000 SYS1     2014098 14:20:47.77 STC00027 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000005   N 0000000 SYS1     2014098 14:20:47.74 STC00026 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
000006   N 0000000 SYS1     2014098 14:20:47.78 STC00032 00000090  IEF404I BPXAS - ENDED - TIME=14.20.47
- - -  -  -  
```

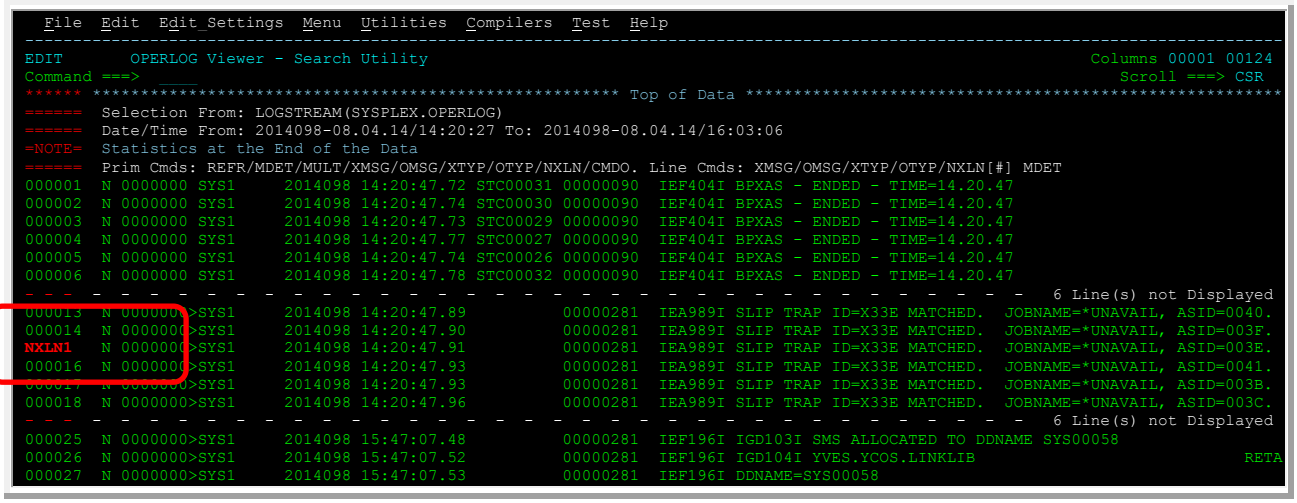

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===>
Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000002 N 0000000 SYS1 2014098 14:20:47.74 STC00030 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000003 N 0000000 SYS1 2014098 14:20:47.73 STC00029 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000004 N 0000000 SYS1 2014098 14:20:47.77 STC00027 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000005 N 0000000 SYS1 2014098 14:20:47.74 STC00026 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000006 N 0000000 SYS1 2014098 14:20:47.78 STC00032 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
6 Line(s) not Displayed
000013 N 0000000>SYS1 2014098 14:20:47.89 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0040.
000014 N 0000000>SYS1 2014098 14:20:47.90 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003F.
NXLN1 N 0000000>SYS1 2014098 14:20:47.91 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003E.
000016 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0041.
000017 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003B.
000018 N 0000000>SYS1 2014098 14:20:47.96 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003C.
6 Line(s) not Displayed
000025 N 0000000>SYS1 2014098 15:47:07.48 00000281 IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00058
000026 N 0000000>SYS1 2014098 15:47:07.52 00000281 IEF196I IGD104I YVES.YCOS.LINKLIB RETA
000027 N 0000000>SYS1 2014098 15:47:07.53 00000281 IEF196I DDNAME=SYS00058

Figure 51: NXLN – UnX lines – line command

NXLN can also be given as a line command. Without value it will redisplay 2 lines above/below. Any value can also be given to redisplay less (1) or more excluded lines.
As a line command NXLN will only work between the next up/down lines

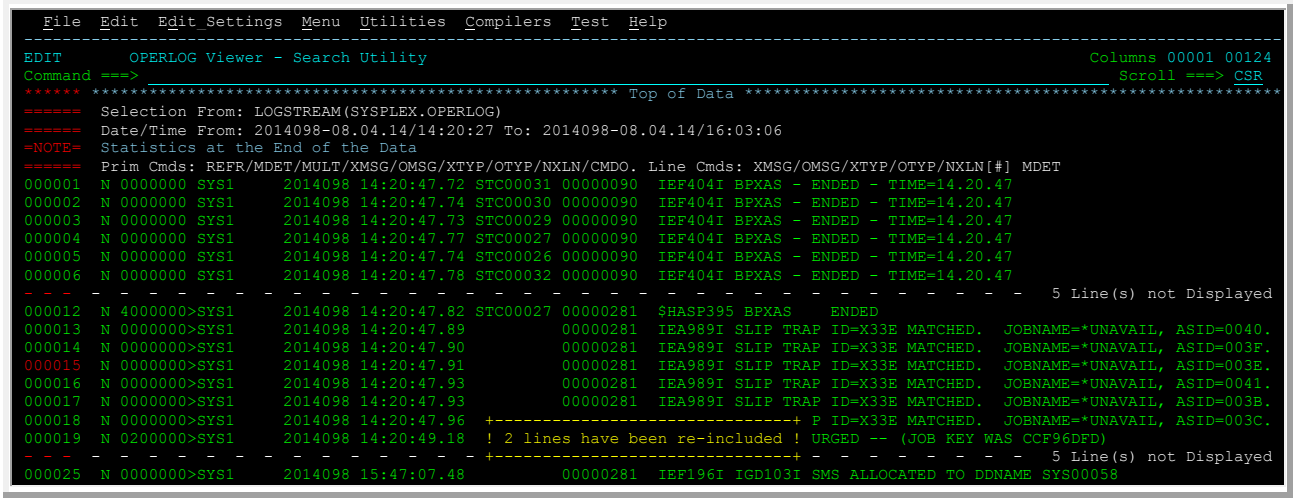
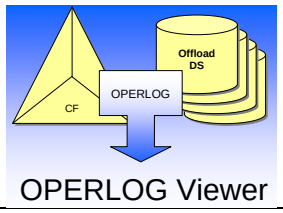

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===>
Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:27 To: 2014098-08.04.14/16:03:06
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000002 N 0000000 SYS1 2014098 14:20:47.74 STC00030 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000003 N 0000000 SYS1 2014098 14:20:47.73 STC00029 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000004 N 0000000 SYS1 2014098 14:20:47.77 STC00027 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000005 N 0000000 SYS1 2014098 14:20:47.74 STC00026 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
000006 N 0000000 SYS1 2014098 14:20:47.78 STC00032 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47
5 Line(s) not Displayed
000012 N 4000000>SYS1 2014098 14:20:47.82 STC00027 00000281 $HASP395 BPXAS ENDED
000013 N 0000000>SYS1 2014098 14:20:47.89 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0040.
000014 N 0000000>SYS1 2014098 14:20:47.90 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003F.
000015 N 0000000>SYS1 2014098 14:20:47.91 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003E.
000016 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=0041.
000017 N 0000000>SYS1 2014098 14:20:47.93 00000281 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003B.
000018 N 0000000>SYS1 2014098 14:20:47.96 +------------------------------+ P ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=003C.
000019 N 0200000>SYS1 2014098 14:20:49.18 ! 2 lines have been re-included ! URGED -- (JOB KEY WAS CCF96DFD)
5 Line(s) not Displayed
000025 N 0000000>SYS1 2014098 15:47:07.48 00000281 IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00058

Figure 52: NXLN – UnX lines – line command – result



1.4.8 REFR – Refresh

On LOGSTREAM display the data can be refreshed – showing the newest messages – without having to leave the display. Use the primary command REFR or REFRESH – the display will automatically wrap to the end of the data.
It could be useful to set a PFK to REFR within OPERLOG!

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       SYS11168.T120725.RA000.YVES.R0100040            Columns 00001 00072
Command ===> REFR                                          Scroll ===> CSR
****** ***************************** Top of Data ******************************
======  Date/Time From: 2011168-17.06.11/11:55:57 To: 2011168-17.06.11/12:07:25
=NOTE=  Statistics at the End of the Data
=NOTE=  Use DETAIL to show line details and REFR to refresh display
000001  NC0000000 YSYS     2011168 11:55:57.94 L700     00000290  D A,L
000002  MR0000000 YSYS     2011168 11:55:58.07          00000090  IEE114I 11.55
000003  LR                                         852 00000090   JOBS     M/S
000004  LR                                         852 00000090  00003    0001
000005  DR                                         852 00000090   LLA      LLA
000006  DR                                         852 00000090   VLF      VLF
000007  DR                                         852 00000090   DLF      DLF
000008  DR                                         852 00000090   RACF     RAC
000009  DR                                         852 00000090   SDSF     SDS
000010  DR                                         852 00000090   TN3270   TN3
000011  DR                                         852 00000090   INETD4   STE
000012  DR                                         852 00000090   FTPD1    STE
000013  ER                                         852 00000090  YVES    OWT
000014  N 0200000>YSYS     2011168 11:57:34.83 JOB00037 00000281  $HASP100 YVES
000015  N 0000000 YSYS     2011168 11:57:34.87 JOB00037 00000290  IRR010I  USER
000016  N 0020000>YSYS     2011168 11:57:35.04 JOB00037 00000281  ICH70001I YVE
000017  N 4000000 YSYS     2011168 11:57:35.09 JOB00037 00000090  $HASP373 YVES
000018  N 0000000>YSYS     2011168 11:57:35.12 JOB00037 00000281  IEF403I YVESA
000019  N 0000000 YSYS     2011168 11:57:35.25 JOB00037 00000090  IEF404I YVESA
000020  N 4000000>YSYS     2011168 11:57:35.28 JOB00037 00000281  $HASP395 YVES
000021  N C000000>YSYS     2011168 11:57:36.23          00000281  $HASP309 INIT
000022  N 0200000>YSYS     2011168 11:57:38.32 JOB00038 00000281  $HASP100 YVES
000023  N 0000000 YSYS     2011168 11:57:38.36 JOB00038 00000290  IRR010I  USER
```

Figure 53: OPERLOG display and REFR

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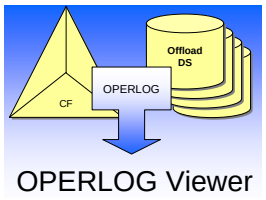
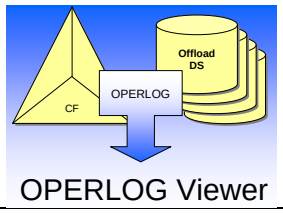



```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       SYS11168.T120827.RA000.YVES.R0100042                  25 new lines
Command ===> ____________________________________________ Scroll ===> CSR
000069  ER                                          898 00000090  YVES    OWT
000070  N 0000000>YSYS     2011168 12:07:26.45         00000281  IEF196I IGD10
000071  N 0000000>YSYS     2011168 12:07:26.65         00000281  IEF196I IGD10
000072  N 0000000>YSYS     2011168 12:07:26.66         00000281  IEF196I DDNAM
000073  N 0200000>YSYS     2011168 12:07:55.69 JOB00042 00000281  $HASP100 YVES
000074  N 0000000 YSYS     2011168 12:07:55.73 JOB00042 00000290  IRR010I  USER
000075  N 0020000>YSYS     2011168 12:07:55.86 JOB00042 00000281  ICH70001I YVE
000076  N 4000000 YSYS     2011168 12:07:55.88 JOB00042 00000090  $HASP373 YVES
000077  N 0000000>YSYS     2011168 12:07:55.92 JOB00042 00000281  IEF403I YVESA
000078  N 0000000 YSYS     2011168 12:07:56.05 JOB00042 00000090  IEF404I YVESA
000079  N 4000000>YSYS     2011168 12:07:56.08 JOB00042 00000281  $HASP395 YVES
000080  N C000000>YSYS     2011168 12:07:56.11         00000281  $HASP309 INIT
000081  NC0000000 YSYS     2011168 12:07:58.27 L700    00000290  D A
000082  MR0000000 YSYS     2011168 12:07:58.40         00000090  IEE114I 12.07
000083  LR                                          912 00000090   JOBS     M/S
000084  ER                                          912 00000090  00003    0001
000085  NC0000000 YSYS     2011168 12:08:02.17 L700    00000290  D T
000086  NR0000000 YSYS     2011168 12:08:02.24         00000090  IEE136I LOCAL
000087  N 0200000>YSYS     2011168 12:08:09.82 JOB00043 00000281  $HASP100 YVES
000088  N 0000000 YSYS     2011168 12:08:09.85 JOB00043 00000290  IRR010I  USER
000089  N 0020000>YSYS     2011168 12:08:09.97 JOB00043 00000281  ICH70001I YVE
000090  N 4000000 YSYS     2011168 12:08:09.99 JOB00043 00000090  $HASP373 YVES
000091  N 0000000>YSYS     2011168 12:08:10.01 JOB00043 00000281  IEF403I YVESB
000092  N 0000000 YSYS     2011168 12:08:10.17 JOB00043 00000090  IEF404I YVESB
000093  N 4000000>YSYS     2011168 12:08:10.21 JOB00043 00000281  $HASP395 YVES
000094  N C000000>YSYS     2011168 12:08:10.24         00000281  $HASP309 INIT
==MSG>  ========================Selection and Statistics=========================
```

Figure 54: OPERLOG display after REFR

The number of “new/added” lines will be displayed as message – right top.

This command is not usable for MDB saved data – D selection.



1.4.9 CMDO – MVS Command

On LOGSTREAM display MVS (and other subsystem) commands can be entered using the CMDO primary command. To be able to use it, following requirements are needed:

- Running SDSF (IBM product)
- Have the appropriate security authorities to issue the commands

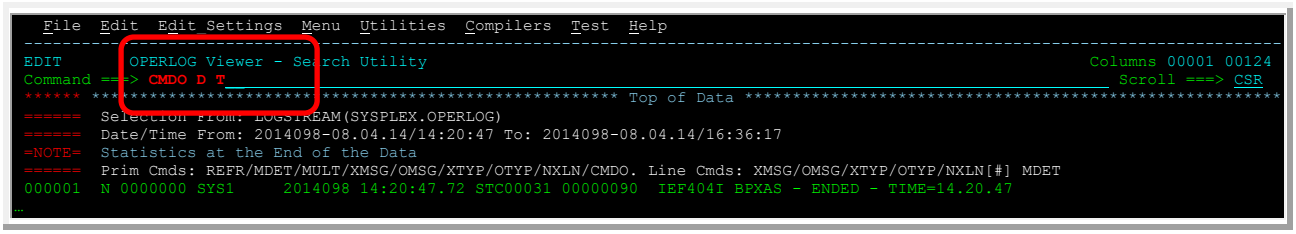

File Edit Edit Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility Columns 00001 00124
Command ===> CMDO D T Scroll ===> CSR
****** ********** Top of Data **********
====== Selection From: LOGSTREAM(SYSPLEX.OPERLOG)
====== Date/Time From: 2014098-08.04.14/14:20:47 To: 2014098-08.04.14/16:36:17
=NOTE= Statistics at the End of the Data
====== Prim Cmds: REFR/MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#] MDET
000001 N 0000000 SYS1 2014098 14:20:47.72 STC00031 00000090 IEF404I BPXAS - ENDED - TIME=14.20.47

Figure 55: CMDO – Issue MVS command – primary command

The result of the command will be presented in an own edit function

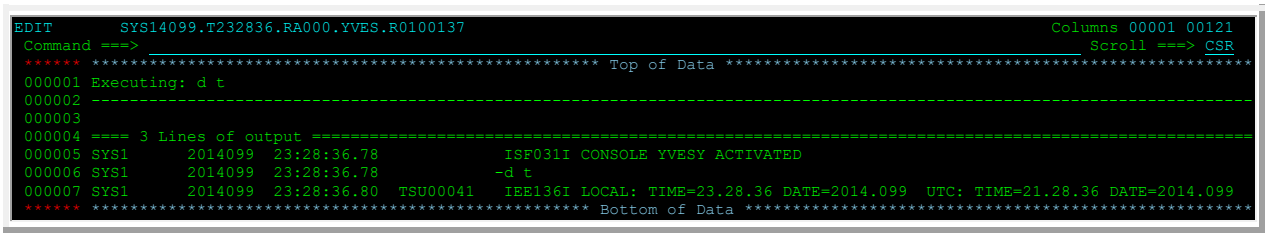


Figure 56: CMDO – Issue MVS command – result

Press PF3 (Return) to return to the Operlog display.

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1.4.10 MULT – Unsplit multiline messages

On LOGSTREAM display the usage of the MULT primary command will help working with traditional Syslog multiline messages.

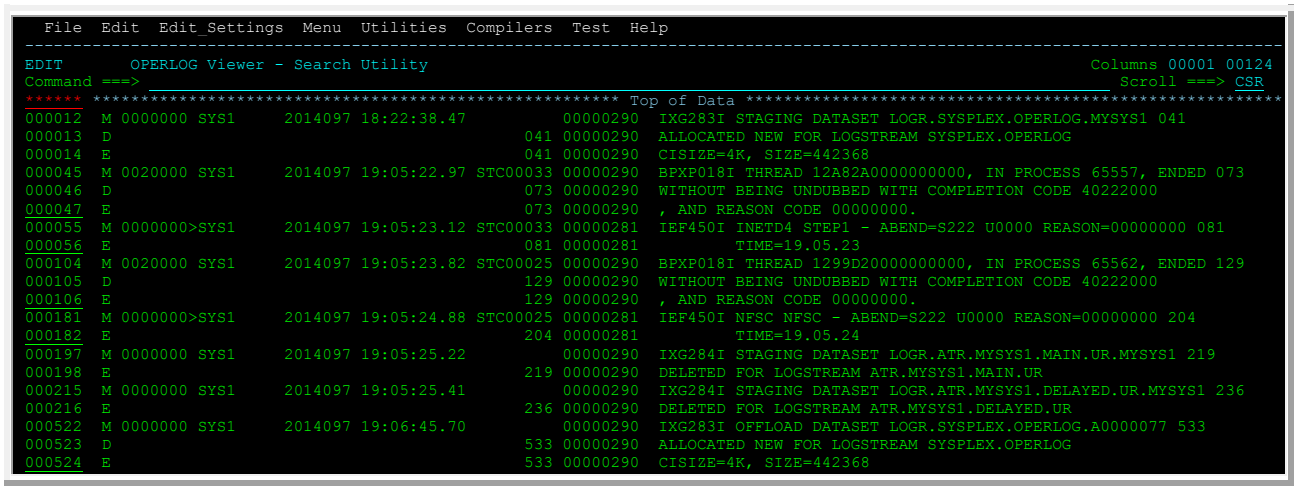


Figure 57: Example of typical multiline messages

The result of the MULT primary command will be presented in an own edit function

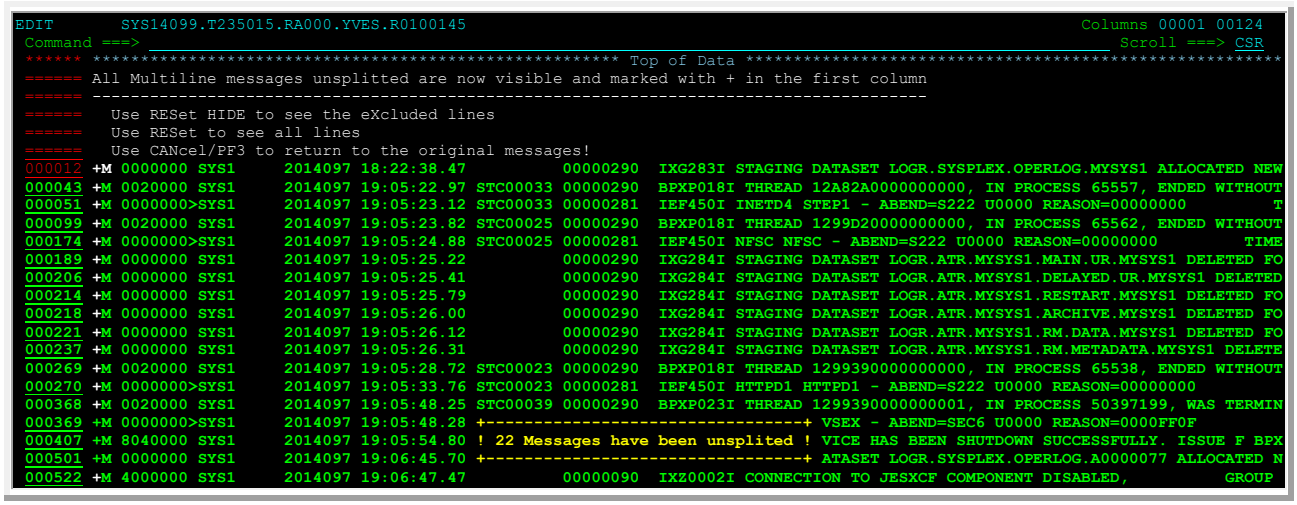
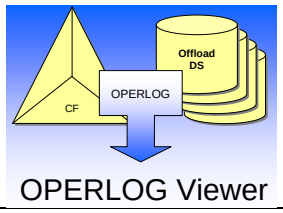

EDIT SYS14099.T235015.RA000.YVES.R0100145
Columns 00001 00124
Command ===>
Scroll ===> CSR
****** ********** Top of Data **********
====== All Multiline messages unsplitted are now visible and marked with + in the first column
====== Use RESet HIDE to see the eXcluded lines
====== Use RESet to see all lines
====== Use CANcel/PF3 to return to the original messages!
000012 +M 0000000 SYS1 2014097 18:22:38.47 00000290 IXG283I STAGING DATASET LOGR.SYSPLEX.OPERLOG.MYSYS1 ALLOCATED NEW
000043 +M 0020000 SYS1 2014097 19:05:22.97 STC00033 00000290 BPXP018I THREAD 12A82A0000000000, IN PROCESS 65557, ENDED WITHOUT
000051 +M 0000000>SYS1 2014097 19:05:23.12 STC00033 00000281 IEF450I INETD4 STEP1 - ABEND=S222 U0000 REASON=00000000 T
000099 +M 0020000 SYS1 2014097 19:05:23.82 STC00025 00000290 BPXP018I THREAD 1299D20000000000, IN PROCESS 65562, ENDED WITHOUT
000174 +M 0000000>SYS1 2014097 19:05:24.88 STC00025 00000281 IEF450I NFSC NFSC - ABEND=S222 U0000 REASON=00000000 TIME
000189 +M 0000000 SYS1 2014097 19:05:25.22 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.MAIN.UR.MYSYS1 DELETED FO
000206 +M 0000000 SYS1 2014097 19:05:25.41 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.DELAYED.UR.MYSYS1 DELETED
000214 +M 0000000 SYS1 2014097 19:05:25.79 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.RESTART.MYSYS1 DELETED FO
000218 +M 0000000 SYS1 2014097 19:05:26.00 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.ARCHIVE.MYSYS1 DELETED FO
000221 +M 0000000 SYS1 2014097 19:05:26.12 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.RM.DATA.MYSYS1 DELETED FO
000237 +M 0000000 SYS1 2014097 19:05:26.31 00000290 IXG284I STAGING DATASET LOGR.ATR.MYSYS1.RM.METADATA.MYSYS1 DELETE
000269 +M 0020000 SYS1 2014097 19:05:28.72 STC00023 00000290 BPXP018I THREAD 1299390000000000, IN PROCESS 65538, ENDED WITHOUT
000270 +M 0000000>SYS1 2014097 19:05:33.76 STC00023 00000281 IEF450I HTTPD1 HTTPD1 - ABEND=S222 U0000 REASON=00000000
000368 +M 0020000 SYS1 2014097 19:05:48.25 STC00039 00000290 BPXP023I THREAD 1299390000000001, IN PROCESS 50397199, WAS TERMIN
000369 +M 0000000>SYS1 2014097 19:05:48.28 +----------+ VSEX - ABEND=SEC6 U0000 REASON=0000FF0F
000407 +M 8040000 SYS1 2014097 19:05:54.80 ! 22 Messages have been unsplited ! VICE HAS BEEN SHUTDOWN SUCCESSFULLY. ISSUE F BPX
000501 +M 0000000 SYS1 2014097 19:06:45.70 +----------+ ATASET LOGR.SYSPLEX.OPERLOG.A0000077 ALLOCATED N
000522 +M 4000000 SYS1 2014097 19:06:47.47 00000090 IXZ0002I CONNECTION TO JESXCF COMPONENT DISABLED, GROUP

Figure 58: MULT – Unsplit multiline messages – result

The multiline messages will be marked with a “+” in the first column.
The non-multiline messages are hidden.

Press PF3 (Return) to return to the Operlog display.



1.5 OPERLOG – Batch

Using the B – Batch – option on the main OPERLOG Viewer panel will create a batch job to run OPERLOG Viewer in the background, using your current selection. The JCL and some parameters must/can be changed:

- JOB JCL can/must adapted to your installation
- MSGLOG DD will contain messages and statistics
  - Optional: if not given, the job will receive a message:
    ```
    IEC130I MSGLOG   DD STATEMENT MISSING
    ```
- SYSLOGx DD will contain the SYSLOG output; a selection of using SYSOUT or an output dataset is given.
  - x must be alphanumeric and matching the PARM='D(x)' value
  - the dataset can be a sysout or a dataset (RECM=VB LRECL=256)

OPERLOG Viewer Batch will be controlled through:

1. **PARM='D(x)'** will control the suffix of SYSLOGx and OPERLOGx DD statements
   a. x must be alphanumeric and matching the SYSLOGx and OPERLOGx value
   b. the dataset can be a JCL Instream SYSIN or a dataset (RECFM=FB LRECL=80)
2. OPERLOGx will caontain the control parameters:
   a. General settings:
      i. **YS**: your selection
         1. YS(LOGSTREAM) – input from logstream - Default
         2. YS(DATASET) – input from MDB saved dataset
         3. YS(BOTH) – input from MDB saved dataset and logstream. Needed if date/time selection is crossing both
            If option BOTH is used, it has to be specified BEFORE LS and HL!

      ii. **LS**: name of the input Logstream
         1. SYSPLEX.OPERLOG or other OPERLOG Logstream *(z/OSMF)*

      iii. **HL**: high level qualifier – needed if:
         1. CP - copy – OPERLOG/BOTH selected
         2. YS - your selection – DATASET/BOTH selected

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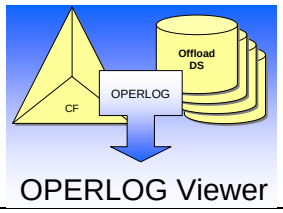
iv. **CP**: copy output format
   1. CP(SYSLOG) – SYSLOG format - SYSLOGx - Default
   2. CP(OPERLOG) – MDB saved datasets
   3. CP(BOTH) – SYSLOG and MBD saved dataset
   4. BOTH/OPERLOG:
      a. HL required. DSN name convention
         hlq.level.Dyymmdd.Jjjj.Hhh
         hlq.level = HL
         Dyymmdd = year month day
         Jjjj = day in Julian form
         Hhh = start hour
      b. no selection possible
      c. FD(-1) and TD(-1) Default

Batch Parameter	Option				
YS Your Selection	LOGSTREAM			DATASET	BOTH
LS Logstream	Required				Required
HL High Level Qualifier		Required		Required	Required
CP Copy Output Format	SYSLOG	OPERLOG	BOTH	SYSLOG	SYSLOG
	⇩	⇩	⇩	⇩	⇩
	Report		Report	Report	Report
		MDB save	MDB save		



b. Following selection parameters can be given:
   i. **FD**: from Date – format: JJJJDDD – Default Today
      -DDD – Relative date

   ii. **TD**: to Date – format: JJJJDDD - Default Today
      -DDD – Relative date

   iii. **FT**: from Time – format: HHMMSS – Default 000000

   iv. **TT**: to Time – format: HHMMSS – Default 235959

   v. **AROUND**: Time in seconds around the selection –
   format: SSS – Default 000
      See Around selection
      This option will require more resources (CPU and I/O)

   vi. **J1-9** and **A-G**: Jobname – format:
      8 characters generic and masking with “?”
      NOT with “-“ in first position
      See Jobname filter

   vii. **I1-9** and **A-G**: Job Id – format:
      8 characters generic and masking with “?”
      NOT with “-“ in first position
      See Job Id filter

   viii. **M1-9** and **A-G**: Msg Id – format:
      12 characters generic and masking with “?”
      NOT with “-“ in first position
      See Message Id filter

   ix. **S1-9** and **A-G**: System – format:
      8 characters generic and masking with “?”
      NOT with “-“ in first position
      See System filter

   x. **X1-9** and **A-G**: Text – format:
      20 characters generic
      NO masking supported
      NO “NOT” notation supported
      See Text filter
      This option will require more resources (CPU)

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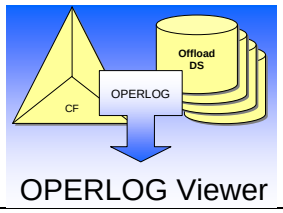
c. Rules

   i. Code a “*” in column 1 to create a comment

   ii. Parameters must start in columns 1 to 10

   iii. Only 1 parameter statement per line will be accepted



1.5.1 Batch – Search Operlog Logstream

The “B” primary command on the main menu will display a batch job to run your current selection as a batch job.

Sample JCL:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       SYS04356.T132051.RA000.YVES.R0100017            Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> PAGE
****** ***************************** Top of Data ******************************
====== Please correct the JCL and Submit
======   - Change Job Card
======   - Select and Change SYSLOGx DD Statement
000001 //OPERLOG  JOB 'ACCT#',YVES,CLASS=A,MSGCLASS=X,NOTIFY=YVES
000002 //*-------------------------------------------------------------
000003 //* This job can be used to select records from OPERLOG
000004 //* (C) YCOS Yves Colliard Software GmbH 2003-15
000005 //*-------------------------------------------------------------
000006 //OPERLOG  EXEC PGM=YCOPRLOG,PARM='D(2)',REGION=6M
000007 //MSGLOG   DD SYSOUT=*          Message Log
000008 //* PLEASE: Select Sysout or DSN
000009 //*            DSN PLEASE: correct allocation parameters
000010 //*SYSLOG2 DD SYSOUT=*
000011 //SYSLOG2  DD DSN=YVES.OPERLOG.D150219.T104901,
000012 //         DISP=(,CATLG),SPACE=(CYL,(30,30),RLSE),
000013 //         RECFM=VB,LRECL=256,
000014 //         UNIT=SYSDA
000015 //SYSUDUMP DD SYSOUT=*
000016 //* Operlog parameters
000017 //OPERLOG2 DD *
000018 FD(2015049)
000019 TD(2015049)
000020 FT(172233)
000021 TT(192233)
000022 LS(SYSPLEX.OPERLOG)
000023 DF(J)
000024 *-------------------------------------------------------------
000025 * OPERLOGx DD parameters
000026 * - YS      your selection
000027 *          YS(LOGSTREAM) - input from logstream - Default
000028 *          YS(DATASET)   - input from MDB saved dataset
000029 *          YS(BOTH)      - input from MDB & Logstream
000030 *                          must be specified before LS & HL
000031 * - LS      name of the input Logstream
000032 *          SYSPLEX.OPERLOG or other OPERLOG LS
000033 * - HL      high level qualifier
000034 *          needed if
000035 *                CP - copy - OPERLOG/BOTH selected
000036 *                YS - your selection - DATASET selected
000037 *                                   or - BOTH selected
000038 * - CP      copy output format
000039 *          CP(SYSLOG)  - SYSLOG format - SYSLOGx - Default
000040 *          CP(OPERLOG) - MDB saved datasets
```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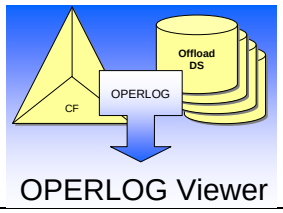
```
000041 *           CP(BOTH)     - SYSLOG and MBD saved dataset
000042 *           BOTH/OPERLOG:
000043 *                        . HL required. DSN name convention
000044 *                          hlq.level.Dyymmdd.Jjjj.Hhh
000045 *                          hlq.level = HL
000046 *                          Dyymmdd   = year month day
000047 *                          Jjjj      = day in julian form
000048 *                          Hhh       = start hour
000049 *                        . no selection possible
000050 *                        . FD(-1) and TD(-1) Default
000051 * - DF       Display Format
000052 *           DF(I)        - Display Jobid   (Default JES2)
000053 *           DF(J)        - Display Jobname (Default JES3)
000054 *-------------------------------------------------------------
000055 * Following selection parameters can be given
000056 * - FD        from Date - format: JJJJDDD - Default Today
000057 *                                 -DDD    - Relative date
000058 * - TD        to Date   - format: JJJJDDD - Default Today
000059 *                                 -DDD    - Relative date
000060 * - FT        from Time - format: HHMMSS - Default 000000
000061 * - TT        to Time   - format: HHMMSS - Default 235959
000062 * - J1-9 A-G Jobname    - format: Character 8 generic
000063 * - I1-9 A-G Job Id     - format: Character 8 generic
000064 * - M1-9 A-G Msg Id     - format: Character 10 generic
000065 * - S1-9 A-G System     - format: Character 8 generic
000066 * - X1-9 A-G Text       - format: Character 20 generic
000067 * - J#/I#/M#/S#/X#      - are supporting single char: ?
000068 *                          and NOT notation: -select
000069 * - AROUND              - format: SSS    - Default 000 secs
000070 *           select data before/after nnn secs to filter
000071 *-------------------------------------------------------------
000072 * - *                  - comment (column 1)
000073 *-------------------------------------------------------------
000074 * Format:   kw(value)
000075 * Sample:   M1(IEF)
000076 *           FD(-1)
000077 *           TD(-1)
000078 * Keywords must start between column 1 and 10
000079 *-------------------------------------------------------------
000080 /*
```

Figure 59: OPERLOG Viewer – Batch – B

A sample can also be found in the samplib – YCOPRJ1.




```
//   SET LIB=yourhlq.YCOS.LINKLIB
//*-------------------------------------------------------
//* This job can be used to select records from OPERLOG
//* (C) YCOS Yves Colliard Software GmbH 2003-15
//*-------------------------------------------------------
//OPERLOG  EXEC PGM=YCOPRLOG,PARM='D(1)',REGION=6M
//STEPLIB  DD DISP=SHR,DSN=&LIB
//MSGLOG   DD SYSOUT=*          Message Log
//* PLEASE: Select Sysout or DSN
//*            DSN PLEASE: correct allocation parameters
//SYSLOG1  DD SYSOUT=*
//*SYSLOG1 DD DSN=your.OPERLOG.OUTPUT.DATASET,
//*        DISP=(,CATLG),SPACE=(CYL,(30,30),RLSE),
//*        RECFM=VB,LRECL=256,
//*        UNIT=SYSDA
//SYSUDUMP DD SYSOUT=*
//* Operlog parameters
//OPERLOG1 DD *
LS(SYSPLEX.OPERLOG)
*-------------------------------------------------------
* Default: select all records from today
*          from LOGSTREAM
*          create SYSLOG output format
*-------------------------------------------------------
*-------------------------------------------------------
* OPERLOGx DD parameters
…
```

Figure 60: OPERLOG Viewer – Batch – Sample YCOPRJ1

The sample can be found in the samplib – YCOPRJ1.

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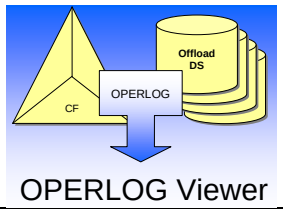
1.5.2 Batch – Search MDB saved datasets

Sample JCL to search in Batch the saved MDB datasets:

```
//   SET LIB=yourhlq.YCOS.LINKLIB
//*-------------------------------------------------------
//* This job can be used to select records from MDB saved
//* OPERLOG format datasets
//* (C) YCOS Yves Colliard Software GmbH 2003-15
//*-------------------------------------------------------
//OPERLOG  EXEC PGM=YCOPRLOG,PARM='D(1)',REGION=6M
//STEPLIB  DD DISP=SHR,DSN=&LIB
//MSGLOG   DD SYSOUT=*          Message Log
//* PLEASE: Select Sysout or DSN
//*            DSN PLEASE: correct allocation parameters
//SYSLOG1  DD SYSOUT=*
//*SYSLOG1 DD DSN=your.OPERLOG.OUTPUT.DATASET,
//*        DISP=(,CATLG),SPACE=(CYL,(30,30),RLSE),
//*        RECFM=VB,LRECL=256,
//*        UNIT=SYSDA
//SYSUDUMP DD SYSOUT=*
//* Operlog parameters
//OPERLOG1 DD *
YS(DATASET)
HL(YCOS.OPERLOG)
FD(-1)
TD(-1)
M1(I)
*-------------------------------------------------------------
* From MDB saved OPERLOG format datasets
*          select all records from yesterday
*          messages starting with "I"
*          from DATASETs YCOS.OPERLOG.Dyymmdd.Jjjj.Hhh
*          create SYSLOG output format
*-------------------------------------------------------------
*-------------------------------------------------------------
* OPERLOGx DD parameters
…
```

Figure 61: OPERLOG Viewer – Batch search MDB datasets – YCOPRL3

The sample can be found in the samplib – YCOPRJ3.



1.5.3 Batch – Search Operlog and MDB saved datasets

Sample JCL to search in Batch the Operlog Logstream and the saved MDB datasets:

```
//   SET LIB=yourhlq.YCOS.LINKLIB
//*-------------------------------------------------------
//* This job can be used to select records from
//*      MDB saved datasets (older today)
//*      Sysplex Operlog Logstream (today)
//* OPERLOG format datasets
//* (C) YCOS Yves Colliard Software GmbH 2003-15
//*-------------------------------------------------------
//OPERLOG  EXEC PGM=YCOPRLOG,PARM='D(1)',REGION=6M
//STEPLIB  DD DISP=SHR,DSN=&LIB
//MSGLOG   DD SYSOUT=*          Message Log
//* PLEASE: Select Sysout or DSN
//*            DSN PLEASE: correct allocation parameters
//SYSLOG1  DD SYSOUT=*
//*SYSLOG1 DD DSN=your.OPERLOG.OUTPUT.DATASET,
//*        DISP=(,CATLG),SPACE=(CYL,(30,30),RLSE),
//*        RECFM=VB,LRECL=256,
//*        UNIT=SYSDA
//SYSUDUMP DD SYSOUT=*
//* Operlog parameters
//OPERLOG1 DD *
YS(BOTH)
LS(SYSPLEX.OPERLOG)
HL(YCOS.OPERLOG)
FD(-1)
TD(-0)
M1(I)
*-------------------------------------------------------
* From Operlog Logstream and
*      MDB saved OPERLOG format datasets
*          select all records from yesterday to today
*          messages starting with "I"
*          from Sysplex Operlog Logstream and
*          from DATASETs YCOS.OPERLOG.Dyymmdd.Jjjj.Hhh
*          create SYSLOG output format
*-------------------------------------------------------
*-------------------------------------------------------
* OPERLOGx DD parameters
…
```

Figure 62: OPERLOG Viewer – Batch search Operlog and MDB datasets – YCOPRL4

The sample can be found in the samplib – YCOPRJ4.

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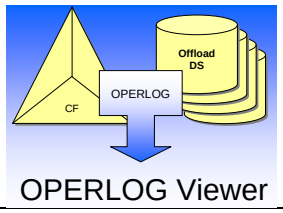
1.5.4 Batch – Create MDB saved datasets

Sample JCL to create in Batch the MDB saved datasets:

```
//   SET LIB=yourhlq.YCOS.LINKLIB
//*-------------------------------------------------------
//* This job can be used to create MDB OPERLOG saved
//* datasets from OPERLOG. Should run every day once,
//* after midnight
//* (C) YCOS Yves Colliard Software GmbH 2003-15
//*-------------------------------------------------------
//OPERLOG  EXEC PGM=YCOPRLOG,PARM='D(1)',REGION=6M
//STEPLIB  DD DISP=SHR,DSN=&LIB
//MSGLOG   DD SYSOUT=*          Message Log
//SYSLOG1  DD SYSOUT=*          unused
//SYSUDUMP DD SYSOUT=*
//* Operlog parameters
//OPERLOG1 DD *
LS(SYSPLEX.OPERLOG)
HL(YCOS.OPERLOG)
CP(OPERLOG)
*-------------------------------------------------------
* Save MDB: select all records from yesterday
*           from LOGSTREAM
*           create OPERLOG output format
*           dataset will be created with name
*             YCOS.OPERLOG.Dyymmdd.Jjjj.Hhh
*-------------------------------------------------------
*-------------------------------------------------------
* OPERLOGx DD parameters
…
```

Figure 63: OPERLOG Viewer – Batch create MDB datasets – YCOPRJ2

The sample can be found in the samplib – YCOPRJ2.



Hints regarding MDB saved datasets:

- This job should be run every day – after midnight – once per sysplex
- The selected high level qualifier should be accessible to all users (also able to read the OPERLOG data)
  - The accessibility of the data will also be controlled by system name – like OPERLOG. See Authorization
- The dataset created should have (SMS) following characteristics:
  - Extended type and compressed
  - Data “older” than an installation given time should be migrated
  - Data “older” than an installation given time should be deleted
- The OPERLOG Logstream data could be automatically deleted (RETP in Logstream definition) – for instance after 2 days. Keeping more data within the logstream could speedup search (reducing recalls on migrated MDB saved datasets).

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1.5.5 Display of Operlog reports

Operlog report datasets created with the batch jobs (see Batch – Search Operlog Logstream and Batch – Search MDB saved datasets) or created based on online queries (see Start the search – Logstream and MDB saved) can be displayed using the same flexibility and features than the online interface.
Use the command YCOPRDS to view the data within the Operlog report datasets:

TSO YCOPRDS 'dsname'
Or within a dataset list by placing the command YCOPRDS in the wanted line.

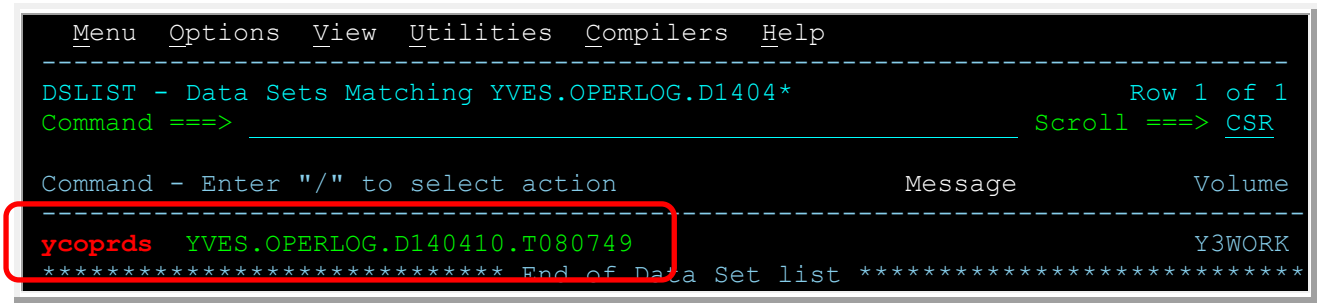


Figure 64: Viewing Batch report datasets

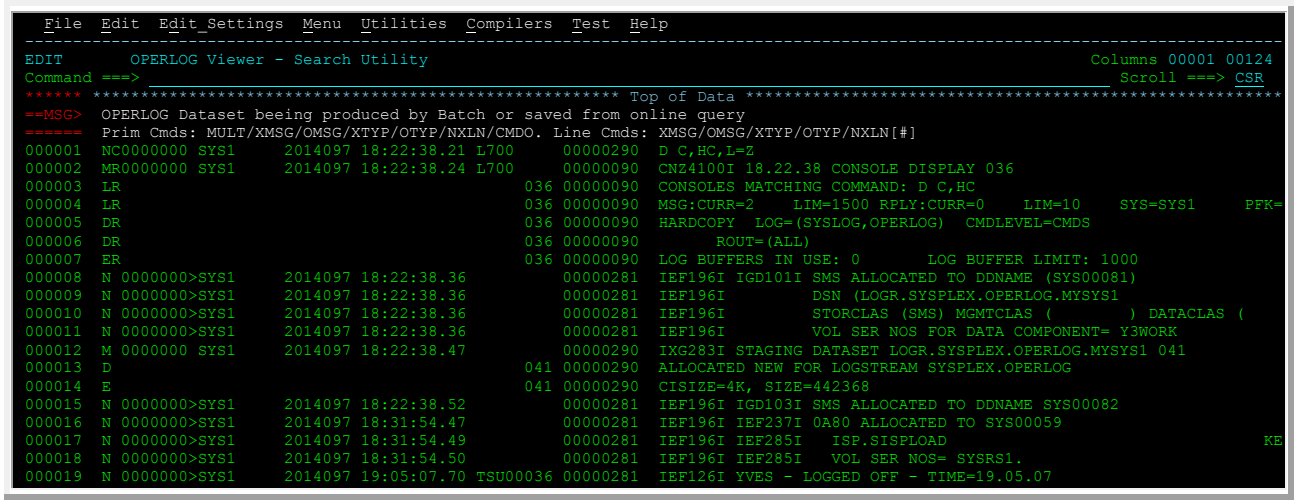
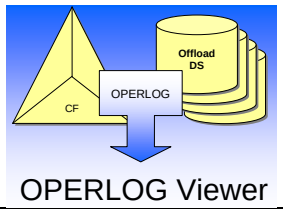

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT OPERLOG Viewer - Search Utility
Columns 00001 00124
Command ===>
Scroll ===> CSR
Top of Data
==MSG> OPERLOG Dataset beeing produced by Batch or saved from online query
Prim Cmds: MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN[#]
000001 NC0000000 SYS1 2014097 18:22:38.21 L700 00000290 D C,HC,L=Z
000002 MR0000000 SYS1 2014097 18:22:38.24 L700 00000090 CNZ4100I 18.22.38 CONSOLE DISPLAY 036
000003 LR 036 00000090 CONSOLES MATCHING COMMAND: D C,HC
000004 LR 036 00000090 MSG:CURR=2 LIM=1500 RPLY:CURR=0 LIM=10 SYS=SYS1 PFK=
000005 DR 036 00000090 HARDCOPY LOG=(SYSLOG,OPERLOG) CMDLEVEL=CMDS
000006 DR 036 00000090 ROUT=(ALL)
000007 ER 036 00000090 LOG BUFFERS IN USE: 0 LOG BUFFER LIMIT: 1000
000008 N 0000000>SYS1 2014097 18:22:38.36 00000281 IEF196I IGD101I SMS ALLOCATED TO DDNAME (SYS00081)
000009 N 0000000>SYS1 2014097 18:22:38.36 00000281 IEF196I DSN (LOGR.SYSPLEX.OPERLOG.MYSYS1
000010 N 0000000>SYS1 2014097 18:22:38.36 00000281 IEF196I STORCLAS (SMS) MGMTCLAS ( ) DATACLAS (
000011 N 0000000>SYS1 2014097 18:22:38.36 00000281 IEF196I VOL SER NOS FOR DATA COMPONENT= Y3WORK
000012 M 0000000 SYS1 2014097 18:22:38.47 00000290 IXG283I STAGING DATASET LOGR.SYSPLEX.OPERLOG.MYSYS1 041
000013 D 041 00000290 ALLOCATED NEW FOR LOGSTREAM SYSPLEX.OPERLOG
000014 E 041 00000290 CISIZE=4K, SIZE=442368
000015 N 0000000>SYS1 2014097 18:22:38.52 00000281 IEF196I IGD103I SMS ALLOCATED TO DDNAME SYS00082
000016 N 0000000>SYS1 2014097 18:31:54.47 00000281 IEF196I IEF237I 0A80 ALLOCATED TO SYS00059
000017 N 0000000>SYS1 2014097 18:31:54.49 00000281 IEF196I IEF285I ISP.SISPLOAD KE
000018 N 0000000>SYS1 2014097 18:31:54.50 00000281 IEF196I IEF285I VOL SER NOS= SYSRS1.
000019 N 0000000>SYS1 2014097 19:05:07.70 TSU00036 00000281 IEF126I YVES - LOGGED OFF - TIME=19.05.07

Figure 65: Edit Batch report datasets



1.5.6 Display MDB saved datasets

MDB saved datasets can also be accessed directly using the ISPF dataset list (DSLIST 3.4) interface.
Use the command YCOPRDS to view the data within the MDB saved datasets:

TSO YCOPRDS 'dsname'
Or within a dataset list by placing the command YCOPRDS in the wanted line.

```
  Menu  Options  View  Utilities  Compilers  Help
 ------------------------------------------------------------------------------
 DSLIST - Data Sets Matching YCOS.OPERLOG                        Row 1 of 1
 Command ===> ____________________________________________ Scroll ===> CSR

 Command - Enter "/" to select action              Message          Volume
 ------------------------------------------------------------------------------
 ycoprds   YVES.OPERLOG.D150218.J049.H18                            Y3WORK
           YVES.OPERLOG.D150218.J049.H19                            Y3WORK
           YVES.OPERLOG.D150218.J049.H20                            Y3WORK
           YVES.OPERLOG.D150218.J049.H21                            Y3WORK
...
 ****************************** End of Data Set list ****************************
```

Figure 66: Viewing MDB saved datasets

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
- DATASET(YVES.OPERLOG.D%%%%%%.J%%%.H%%) ------------------------------------------------------------------------------------------------
EDIT       OPERLOG Viewer - Search Utility                                                                  Columns 00001 00152
Command ===> ____________________________________________________________ Top of Data ____________________________ Scroll ===> CSR
****** ********************************************************************************************************************************
======  Selection From: DATASET(YVES.OPERLOG.D%%%%%%.J%%%.H%%)
======  Date/Time From: 2015049-18.02.15/18:00:00 To: 2015049-18.02.15/18:59:59
======  Prim Cmds: MDET/MULT/XMSG/OMSG/XTYP/OTYP/NXLN/CMDO. Line Cmds: XMSG/OMSG/XTYP/OTYP/NXLN(#) MDET/HMSG
000001  N 0200000>SYS1     2015049 18:05:33.88 JOB00073 00000281  $HASP100 YVESI    ON INTRDR                        FROM TSU00050 YVES
000002  N 0000000 SYS1     2015049 18:05:33.90 JOB00073 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
000003  N 0020000>SYS1     2015049 18:05:33.99 JOB00073 00000281  ICH70001I YVES     LAST ACCESS AT 17:59:43 ON WEDNESDAY, FEBRUARY 18, 2015
000004  N 4000000 SYS1     2015049 18:05:34.01 JOB00073 00000090  $HASP373 YVESI    STARTED - INIT 1    - CLASS A - SYS SYS1
000005  N 0000000>SYS1     2015049 18:05:34.02 JOB00073 00000281  IEF403I YVESI - STARTED - TIME=18.05.34
000006  N 0000000 SYS1     2015049 18:05:39.15 JOB00073 00000090  IEF404I YVESI - ENDED - TIME=18.05.39
000007  N 4000000>SYS1     2015049 18:05:39.16 JOB00073 00000281  $HASP395 YVESI    ENDED
000008  NC0000000 SYS1     2015049 18:05:39.19 INTERNAL 00000290  SE '18.05.39 JOB00073 $HASP165 YVESI    ENDED AT SYS1     MAXCC=0000',LOGON,USER=(YVES)
000009  N C000000>SYS1     2015049 18:05:39.19          00000281  $HASP309 INIT 1    INACTIVE ******** C=A
000010  NC0000000 SYS1     2015049 18:05:40.31 L700     00000290  F LLA,REFRESH
000011  NR4040000 SYS1     2015049 18:05:43.87 L700     00000090  CSV210I LIBRARY LOOKASIDE REFRESHED
000012  N 0200000>SYS1     2015049 18:14:00.51 JOB00074 00000281  $HASP100 YVESI    ON INTRDR                        FROM TSU00050 YVES
000013  N 0000000 SYS1     2015049 18:14:00.53 JOB00074 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
000014  N 0020000>SYS1     2015049 18:14:00.62 JOB00074 00000281  ICH70001I YVES     LAST ACCESS AT 18:05:33 ON WEDNESDAY, FEBRUARY 18, 2015
000015  N 4000000 SYS1     2015049 18:14:00.63 JOB00074 00000090  $HASP373 YVESI    STARTED - INIT 1    - CLASS A - SYS SYS1
000016  N 0000000>SYS1     2015049 18:14:00.65 JOB00074 00000281  IEF403I YVESI - STARTED - TIME=18.14.00
000017  N 0000000 SYS1     2015049 18:14:05.70 JOB00074 00000090  IEF404I YVESI - ENDED - TIME=18.14.05
000018  N 4000000>SYS1     2015049 18:14:05.71 JOB00074 00000281  $HASP395 YVESI    ENDED
000019  NC0000000 SYS1     2015049 18:14:05.73 INTERNAL 00000290  SE '18.14.05 JOB00074 $HASP165 YVESI    ENDED AT SYS1     MAXCC=0000',LOGON,USER=(YVES)
000020  N C000000>SYS1     2015049 18:14:05.74          00000281  $HASP309 INIT 1    INACTIVE ******** C=A
000021  N 0200000>SYS1     2015049 18:15:15.82 JOB00075 00000281  $HASP100 OPERLOG  ON INTRDR      YVES               FROM TSU00050 YVES
000022  N 0000000 SYS1     2015049 18:15:15.86 JOB00075 00000290  IRR010I  USERID YVES     IS ASSIGNED TO THIS JOB.
000023  N 0020000>SYS1     2015049 18:15:15.91 JOB00075 00000281  ICH70001I YVES     LAST ACCESS AT 18:14:00 ON WEDNESDAY, FEBRUARY 18, 2015
000024  N 4000000 SYS1     2015049 18:15:15.92 JOB00075 00000090  $HASP373 OPERLOG  STARTED - INIT 1    - CLASS A - SYS SYS1
000025  N 0000000>SYS1     2015049 18:15:15.94 JOB00075 00000281  IEF403I OPERLOG - STARTED - TIME=18.15.15
000026  M 0020000>SYS1     2015049 18:15:17.40 JOB00075 00000281  IEA995I SYMPTOM DUMP OUTPUT 358
```

Figure 67: Display MDB saved datasets

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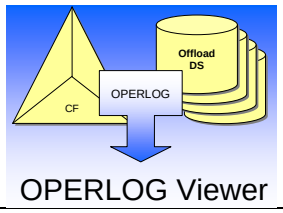
1.5.7 Batch Return Codes

0 – all Ok
4 – no data matching the selection parameters

1.5.8 Batch Abends

U0001 – Parameter Error – no dump – see message
U0002 – No Authority to Access Facility LOGSTRM SYSPLEX.OPERLOG – no dump
U0003 – Open SYSLOGx Output Error – no dump
U0004 – Open OPERLOGx Input Error – no dump
U0005 – internal error – time macro error – dump contact YCOS
U0006 – Logstream Error – See Return and Reason Code – dump
U0007 – internal error – Too Much Systems – dump contact YCOS
U0008 – Open Error Output File MDB – dump
U0009 – Allocation Output MDB File Error – dump
U0010 – internal error – Time Conversion Error – dump contact YCOS
U0011 – Allocation Input MDB File Error – dump
U0012 – Allocation Input MDB File Error – dump
U0013 – internal error – CONVTOD macro error – dump contact YCOS
U0014 – internal error– STCKCONV macro error – dump contact YCOS
U0015 – internal error– STCKCONV macro error – dump contact YCOS
U0016 – internal error– CONVTOD macro error – dump contact YCOS
U0017 – internal error– MDB dataset duplicate contact YCOS



1.6 OPERLOG – Messages

- IEC130I MSGLOG DD STATEMENT MISSING
  - Attention: MSGLOG DD Statement missing – no messages will be produced – Batch!
- OPLOG01I System: Auth: Lines:Filtered: MDBRecs:
  - Statistics for batch processing
- OPLOG02I NO RECORDS IN RANGE
  - Batch: there is no data within the given date/time
- OPLOG03I LOG STREAM IS EMPTY
  - Batch: no data within Logstream
- OPLOG04A LOG STREAM ACCESS DENIED
  - authority access to OPERLOG denied – review LOGSTRM SAF!
- OPLOG05A MORE THAN 32 SYSTEMS - EXTENT SYSTNAME TAB
  - please call YCOS Support
- OPLOG06A SYSLOG OUTPUT DATASET OPEN ERROR
  - please call YCOS Support
- OPLOG07A OPERLOG INPUT DATASET OPEN ERROR
  - please call YCOS Support
- OPLOG08A INVALID OR MISSING PARAMETER xx
  - given parameter are in error - xx = error code
    - 00 - D(..)
    - 01 - right parent not fnd
    - 02 - FD already fnd
    - 03 - FD length error
    - 04 - FD left parent
    - 05 - FD right parent
    - 06 - TD already fnd
    - 07 - TD length error
    - 08 - TD left parent
    - 09 - TD right parent
    - 10 - FT already fnd
    - 11 - FT length error
    - 12 - FT left parent

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- 13 - FT right parent
- 14 - TT already fnd
- 15 - TT length error
- 16 - TT left parent
- 17 - TT right parent
- 18 - Jx( ) - x not 1-9 A-G
- 19 - Jx length error
- 20 - Jx length error
- 21 - Jx left parent
- 22 - Jx right parent
- 23 - Mx( ) - x not 1-9 A-G
- 24 - Mx length error
- 25 - Mx length error
- 26 - Mx left parent
- 27 - Mx right parent
- 28 - Ix( ) - x not 1-9 A-G
- 29 - Ix length error
- 30 - Ix length error
- 31 - Ix left parent
- 32 - Ix right parent
- 33 - Sx( ) - x not 1-9 A-G
- 34 - Sx length error
- 35 - Sx length error
- 36 - Sx left parent
- 37 - Sx right parent
- 38 - Xx( ) - x not 1-9 A-G
- 39 - Xx length error
- 40 - Xx length error
- 41 - Xx left parent
- 42 - Xx right parent
- 43 - HCFORMAT error
- 44 - HCFORMAT error
- 45 - HCFORMAT error
- 46 - HCFORMAT error
- 47 - HCFORMAT error
- 48 - HCFORMAT error
- 49 - HCFORMAT error
- 50 - Start Date error
- 51 - End Date error
- 52 - End Date > Today
- 53 - End Date < Start Date
- 54 - Start Time error
- 55 - Start Time error
- 56 - Start Time error
- 57 - Start Time error
- 58 - End Time error

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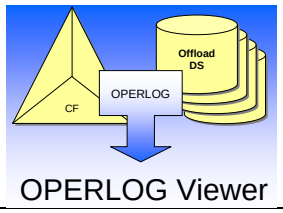

- 59 - End Time error
- 60 - End Time error
- 61 - End Time error
- 62 - LS already given
- 63 - LS > 26
- 64 - FD no - minus
- 65 - FD not numeric
- 66 - TD no - minus
- 67 - TD not numeric
- 68 - CP already given
- 69 - CP Size error
- 70 - CP not BOTH/SYSLOG/OPERLOG
- 71 - HL already given
- 72 - HL > 27
- 73 - CP(OPERLOG) and other parms
- 74 - Unknown parameter
- 75 - YS already given
- 76 - YS Size error
- 77 - YS not DATASET/LOGSTREAM
- 78 - Jx( ) already given
- 79 - Mx( ) already given
- 80 - Ix( ) already given
- 81 - Sx( ) already given
- 82 - Tx( ) already given
- 83 - DF( ) already given
- 84 - DF Size error
- 85 - DF not I/J - JID/Jobname
- 86 - AROUND( ) already given
- 87 - AROUND( ) format error
- 88 - AROUND( ) not numeric
- 89 - AROUND Storage >4G prob-get
- 90 - AROUND Storage >4G prob-fre

- OPLOG09A RECORDS NOT AVAILABLE. RETURN+REASON

- OPLOG10I Date/Time From:
  - Infos about date/time selection for batch processing

- OPLOG11I Selection
  - Infos about selection for batch processing

- OPLOG12I ########## lines not shown ...
  - Multiline messages with selection hit – not all lines will be displayed

- OPLOG13A ERROR DURING SYSTEM LOGGER RETURN+REASON

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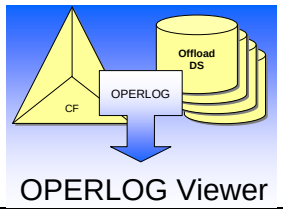
- OPLOG14A MDB OUTPUT DATASET OPEN ERROR
- OPLOG15A MDB OUTPUT DATASET ALLOC ERROR (dsn)
- OPLOG16A MDB DATASET IN USE (dsn)
  - The dataset cannot be accessed since it is in use by another user/address space
- OPLOG17I MDB OUTPUT DATASET ALLOCATED (dsn)
  - The given dataset will be searched
- OPLOG18A ERROR COPY ALREADY RUN - DUPLICATE DATASETS
  - The create MDB saved datasets has already run – review the datasets
- +OPLOG19I ######### MDB records not shown ...
  - Using AROUND Parameter; data will not be showned if not within the range



1.7 OPERLOG – query selectable time range

The main menu option W – query selectable time range – will display the data selectable from LOGSTREAM and from saved MBD datasets.

Sample output:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       SYS12086.T120449.RA000.YVES.R0100567           Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
****** ***************************** Top of Data ******************************
=NOTE=  Show structured IXCMIAPU of SYSPLEX.OPERLOG
=NOTE= ---------------------------------------------
000001 Following Dates/Times are available within SYSPLEX.OPERLOG Logstream
000002
000003 3 Offload Dataset(s): LOGR.SYSPLEX.OPERLOG.Axxxxxxx
000004 1 Extent(s) used in LOGR Couple Dataset
000005
000006 Systems Connected: 0
000007
000008 ----------------- -----------------
000009 Lowest LOCAL      Highest LOCAL
000010 Date   Time       Date     Time
000011 ----------------- -----------------
000012 27.02.12 17:23:48 01.03.12 18:11:18 <<< MIN MAX
000013 ----------------- -----------------
000014 TT.MM.JJ HH:MM:SS TT.MM.JJ HH:MM:SS Volser Dsname
000015 ----------------- ----------------- ------ ----------------------------
000016 ** BRWS  008.0804 28.02.12 16:45:56 Y2WORK LOGR.SYSPLEX.OPERLOG.A0000055
000017 28.02.12 17:23:48 16.03.12 00:20:37 Y3WORK LOGR.SYSPLEX.OPERLOG.A0000056
000018 01.03.12 00:20:37 01.03.12 18:11:18 Y3WORK LOGR.SYSPLEX.OPERLOG.A0000057
000019
000020 Attention the last Offload Dataset may not report date/time.
000021 Also the last Offload Dataset may perhaps not be the current, since
000022 System Logger may allocates the Offload Dataset in advance, to secure th
000023
000024 ===============================================================================
000025 List of Datasets saved by OPERLOG Viewer
000026 Those can be searched using the D command option
000027
000028 Dataset Name                                    Volser
000029 ---------------------------------------- ------
000030 YVES.OPERLOG.D120215.J046.H09                YVOL01
...
000044 (C) YCOS Yves Colliard Software GmbH 2003-12
```

Figure 68: OPERLOG Viewer – selectable data

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1.8 Authorization

Following authorization could/have to be given:

Function – OPERLOG display – ENTER, S or D:

1. The program YCOPRLOG has to be in the LINKLIST concatenation
2. The program YCOPRLOG has to be APF authorized
3. The program YCOPRLOG must be defined in the PARMLIB member IKJTSOxx, as AUTHPGM
4. If the Class LOGSTRM is active, than the users need READ access to the SYSPLEX.OPERLOG profile
5. For the option “D/ENTER” the users need READ access to the MDB datasets
6. OPERLOG Viewer allows a display based on the system. This could be important to DP centers running multiple customers within one sysplex (many JES2 MAS and/or many JES3 complexes). Operlog Viewer uses profiles in the FACILITY class. The profiles have following format:
   OPERLOG.systemname
   the system name can be generic – here some samples
   a. All users have full access to OPERLOG
      i. Profile: OPERLOG.*
         Access: UACC=READ or Permit * READ
   b. Some users should have access only to some systems
      i. Profile: OPERLOG.*
         Access: UACC=NONE
      ii. Profile: OPERLOG.SYS1*
         Access: Permit groups/users READ
      iii. Profile: OPERLOG.SYS2*
         Access: Permit groups/users READ
      iv. …
   c. Some users should have no access to some systems
      i. Profile: OPERLOG.*
         Access: UACC=READ or Permit * READ
      ii. Profile: OPERLOG.SYS1*
         Access: Permit groups/users NONE
      iii. Profile: OPERLOG.SYS2*
         Access: Permit groups/users NONE
      iv. …

Function – query selectable time range – W:

1. The program YCLOGQRY must be in the LINKLIST concatenation
2. The program IXCMIAPU *(IBM Policy Management Tool for Sysplex CDS)* must be defined in the PARMLIB member IKJTSOxx, as AUTHPGM
3. Users, who should be allowed to query the CDS data, must have READ access to profile MVSADMIN.LOGR in the class FACILITY.

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1.9 Customization

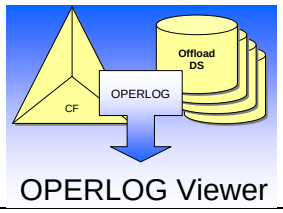
The Rexx procedures within hlq.YCSLOG.Vvrm.PTF###.REXX have to be copied/concatenated to the TSO/ISPF SYSPROC or SYSEXEC. .
One member – YCSETUP – has to be customized. Change the member of create an own copy in a dataset defined ahead in the SYSPROC/SYSEXEC concatenation.

```
/* REXX YCSETUP  Copyright YCOS Yves Colliard Software 2011-14 V2.2   */
/*--------------------------------------------------------------------*/
/* YCSETUP   - Set defaults for customer                              */
/*--------------------------------------------------------------------*/
/* REXX Tool                                                          */
/**********************************************************************/
/*  P038 - 17.06.2014 - support for display JID/JOBNAME               */
/*                      parm DF(I) - JID                              */
/*                           DF(J) - Jobname                          */
/*  V2.2 - 02.01.2014 - Support for Line Commands Table               */
/*  V2.1 - 01.03.2012 - define HLQ of Datasets MDB                    */
/*  P024 - 29.08.2011 - first version release                         */
/*====================================================================*/
/* YCSETUP  Parameter                                                 */
/*  - none                                                            */
/*====================================================================*/
/* */
/*  YCDATACLAS - give a single volume SMS dataclas                    */
push "YCDATACLAS = 'DCSINGLE'"
/* */
/*  YCOPR_HLQ  - give the HLQ of OPERLOG MDB Datasets                 */
/*             - maximum 27 characters                                */
/*                 123456789012345678901234567                        */
push "YCOPR_HLQ  = 'YCOS.OPERLOG'"
/* */
/*  YCLINECMDS - give the name of the Edit Line Command Table  v2.2   */
/*               as supported by ISPF 1.13 and above                  */
/*   "YCLINECMDS = 'YCLMACTB'" is using YCOS Line Commands            */
push "YCLINECMDS = ''"
/* */
/*  YCDISPLFMT - give the Display Format                       P038   */
/*               Currently supported:                                 */
/*   "YCDISPLFMT = 'D' - Default JID/Jobname depending on JES2/JES3   */
/*   "YCDISPLFMT = 'I' - Use JID                                      */
/*   "YCDISPLFMT = 'J' - Use Jobname                                  */
push "YCDISPLFMT = 'D'"
```

YCDATACLAS:

- **Since some IBM ISPF services does not support multivolume datasets – please customize the YCSETUP Member. You have to use a Data Class with a single volume allocation:**
- **Change DCSINGLE to your installation naming convention!**

YCOPR_HLQ:



- **Change YCOS.OPERLOG to your installation naming convention! This will be in Operlog Viewer the name of the searched MDB saved dataset – Operlog Viewer User's Guide**

YCLINECMDS:

- **Some customer are – since z/OS 1.13 – using the integrated ISPF feature of creating/using own edit/view line commands. YCOS is delivering a FREE sample on the homepage www.ycos.de. Please insert the name of your control table (YCOS name is YCLMACTB).**

YCDISPLFMT:

- **Change YCDISPLFMT to your installation default display option: Job Id or Jobname or using subsystem Default!**

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2 OPERLOG Changes

Version 2.3 – PTF041 – 15.02.2015

- Support for display nn secs before/after filter catch
  - New parm AROUND(xxx)
- Support batch parms starting between 1 an 10
- OPLOG01I messaged changed (to clarify)
- Support for not '-' also for system/jobname/jobid selection
- Support for masking '?' system/jobname/jobid selection
- Support date/time crossing dataset and logstream
  - New parm YS(BOTH)
- Support larger panels (132/160)
- Show logstream/dataset on view panel
- Save version/ptf in user and group members
- Support HSMG as line command – help message
- YCOPRDS support saved output (as previous) and mdb as an input

Version 2.2 – PTF039 – 9.07.2014

- Support for displaying USS messages in Operlog Viewer

Version 2.2 – PTF037 – 17.06.2014

- Support for displaying JOBID or JOBNAME. A selection can be made within the YCSETUP as on a user basis

Version 2.2 – PTF036 – 01.04.2014

- Depending on date/time selection OPERLOG Viewer will automatically select active OPERLOG data or saved MDB format (using ENTER)
- On “S” and “D” actions the selectable dates will be checked
- On “B” – Batch – the created JCL will automatically select the correct input data
- The time selection can also be given in hours (12 will be converted to 12:00:00 for the start time and 12:59:59 for end time) and also in hours and minutes (12:13 will be converted to 12:13:00 for the start time and 12:13:59 for end time)
- Filter which are not disabled (/) will be displayed in red to enhanced visibility
- Message ID filter has been enhanced to support up to 12 characters and also a NOT notation “-IEF” (minus)
- Filter which are negating/NOT (-) will be displayed in yellow to enhanced visibility
- The display of the messages has been enhanced:
  - Many new commands and support for line commands (from z/OS 1.13):
  - The primary XMSG command will also hide the selected message
    - XMSG can also be given as a line command. Without value it will exclude the selected message from being displayed; using a number – like XMSG4 – it will select only the first 4 characters of the message
  - New primary OMSG command to only display the wanted messages; very usefull with XMSG together: OMSG IEF and than XMSG IEF196

        - OMSG can also be given as a line command. Without value it will only show the selected message; using a number – like OMSG4 – it will select only the first 4 characters of the message
    - New primary XTYP command to exclude the selected message with the given suffix (A, E, W, I…) from being diplayed
        - XTYP can also be given as a line command. Without value it will exclude the selected message suffix from being displayed; using a number – like XTYP2 – it will select only the last 2 characters of the message
    - New primary OTYP command to only display the messages with the given suffix (A, E, W, I…)
        - OTYP can also be given as a line command. Without value it will only show the selected message; using a number – like OTYP2 – it will select only the last 2 characters of the message
    - New primary NXLN command shows (unX) a given number of lines (default 2) before and after a displayed line(s), after XMSG/OMSG/OTYP/XTYP have been used. It will help determining the context. NXLN 6 will display the previous (up to) 6 excluded and the next (up to) 6 excluded lines (NX)
        - NXLN can also be given as a line command. Without value it will only show the previous and next 2 lines (NX); using a number – like NXLN7 – it will show up to the previous and next 7 lines
    - New primary command MULT: display of multiline message in one line (others are Xed and hidden)
    - DETAIL primary command was enhanced:
        - Supplementary data will be shown (raw MDB data)
        - Support for DETAIL on saved MDB dataset
        - DETAIL has received an alias MDET – compatible to the line command
        - New line command MDET, presenting the same data than DETAIL for the selected line command
    - New primary command OCMD; it will use SDSF under the cover to run MVS commands (as far as authorized)
    - New command YCOPRDS making possible to display Batch or saved online queries with the same features and facilities than ISPF online
    - Many small enhancements and corrections:
        - The Batch process will produce a return code 4 if no record have been found that matches the selection filters
        - The statistics will be displayed with a “!” separator since “-“ will be used as NOT option for filtering messages

Version 2.2 – PTF035 – 02.01.2014

- enhance all filters to 16
- support to up to 32 split screens
- UNCOMPATIBILY CHANGE:
    - Batch Filter T was changed to X – Text

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- Change output display of filters
- After display: support for Edit/View line commands – YCLMACRX
  - YCSETUP HAVE TO BE CUSTOMIZED!
- on save filter REPLACE option or ask
- option enter active on/off
- show last loaded filter

Version 2.1 – PTF035 – 04.11.2013
- correct problem with selection of dataset over a day
- correct wrong continuation

Version 2.1 – PTF034 – 17.06.2013
- correct Multiline handling
- correct problem with search JOBID in JES3

Version 2.1 – PTF032 – 23.08.2012
- Support highlighting

Version 2.1 – PTF031 – 13.08.2012
- enhance base panel: show commands
- support saved filters with:
  - FD(-xx) - from date
  - TD(-xx) - from date
  - FT(hh:mm:ss) - from time
  - TT(hh:mm:ss) - to time

  These filters have to be inserted MANUALLY within the members!
  They will kept on a "save replace" action.
- support for highlighting operlog display output based on own defined filters – LOGHI command

Version 2.1 – PTF030 – 23.07.2012
- exclude messages from Operlog Display using the XMSG command

Version 2.1 – PTF029 – 29.05.2012
- NEW FUNCTION - DEFINES OPERLOG USER/GROUP DS NAMES
- SUPPORT FOR SUSRFILTER, SGRPFILTER
- SUPPORT FOR LUSRFILTER, LGRPFILTER
- CHANGE MESSAGE ID CHECK TO ALLOW FINDING
- COMMANDS LIKE $X AND *X
- GIVE A JOB/UTILITY TO UNLOAD LOGSTREAM TO MDB

Version 2.1 – 05.03.2012
- Operlog Viewer Enhancements
  - 8 Messages filter
  - Create MDB saved datasets
  - Select from MDB saved datasets
  - Many usage enhancements

Version 2.0 – PTF026 – 10.09.2011
- CORRECT THE USAGE OF SYS1.SAXREXEC

Version 2.0 – PTF025 – 30.08.2011
- CORRECT PF10-PF11 KEYS SETTINGS

Version 2.0 – PTF024 – 29.08.2011
- OUTPUT OF MESSAGE AT THE BEGIN
- NEW SETUP ROUTINE FOR DATACLAS AND OTHER CUST DEF

Version 2.0 – PTF023 – 29.07.2011
- A new pull-down option can be used to select the default position during the browse of the operlog
  - TOP – as currently Default
  - BOTTOM – positioning at the last lines of the operlog

Version 2.0 – PTF021 and PTF022 – 24.03.2011
- The default time selection has been enhanced and allow selection of following new time defaults
  - –15 Minutes
  - –30 Minutes
  - –45 Minutes
- A new REFRESH (REFR) primary command during display of the Operlog data allows the user to refresh to the newest data with one single command
- The edit macro YCOPRLM3 – used to display details about messages – has received an alias command name: DETAIL
- The Batch interface allows to give date as a relative -ddd

Version 2.0 – 24.03.2011
- Version has been corrected to be aligned to YCSLOG
- W option has been enhanced

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- Operlog viewer can also be used to view z/OSMF Operlog Logstreams

Version 1.7 – 16.10.2009
- Date selection has been enhanced
- Time selection has been enhanced
- new pull-down menu 'Start Date'
- Message Id selection is now 10 characters
- Message Text selection is now 20 characters
- Display Message Details

Version 1.5 – 27.06.2008
- new possibility for all day selection
- support text search in lower/upper case (not case sensitive)

3 OPERLOG Viewer questions and support

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